HITACHI

S-VHS

VT-S772A

30 minute memory backup. VCR Plus+

Owner's Manual

Your Complete Guide
to Videocassette Viewing
and Recording

Using these quality features:

- S-VHS hi-fidelity picture quality
- VHS hi-fidelity sound in playback
- Automatic tape head cleaning
- Up to 8 delayed recording programs
- Auto tracking for improved picture in playback
- Cable-compatible frequency synthesizer quartz tuner
- Illuminated remote control for use with your VCR, TV, and cable converter
- All basic playback functions on convenient shuttle control
- On-screen programming guide
- Multi-channel TV sound (MTS)
- VCR Plus+* for easy timed recording

* VCR Plus+ and PlusCode are trademarks of Gemstar Development Corp. VCR Plus+ system is manufactured under license from Gemstar Development Corporation.

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FOR YOUR SAFETY

POWER SUPPLY: AC 120V, 60 Hz ONLY.
The POWER switch turns the VCR on and off, leaving the clock/timer unaffected. If the unit is to be
left unattended for a long period, it is recommended that the unit be completely switched off and
unplugged.
Illustrated below is the label on the back of your unit.

This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: Many television programs and films are copyrighted. In certain circumstances, copyright law may apply to private in-home videotaping of copyrighted materials.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference regulations of the Canadian Department of Communications.

"Note to CATV system installer: This reminder is provided to call the CATV system installer's
attention to Article 820-40 of the NEC that provides guide lines for proper grounding and, in
particular, specifies that the cable ground shall be connected to the grounding system of the building,
as close to the point of cable entry as practical".

Read This First

Thank you for buying a Hitachi product. You've chosen the best VCR for you, and we want to help you make the most of your purchase. Please take time to become familiar with this manual and how it is set up. Keep it handy for future reference, too.

To guide you, we've concluded:

"Must read" sections containing important cautions for your family's safety as well as the basic facts you need to use the VCR. These sections are highlighted like this in the table of contents:

Information on the advanced features of your Hitachi VCR. We hope you'll take time to learn about these functions since we've designed them for you. But you can use the VCR without reading these sections.

We want this manual to be a tool for you, so we provide two ways to find the information you need:

A quick index to the basic functions of the VCR which you will use often (this page).

A detailed table of contents directing you to specific information quickly (page 4).

Get to know your VCR by using this manual, and get to know Hitachi. We appreciate your business.

IMPORTANT SAFEGUARDS

In addition to the careful attention devoted to quality standards in the manufacture of your video product, safety is a major factor in the design of every instrument. But, safety is your responsibility too.
This page lists important information that will help to assure your enjoyment and

proper use of a Video Cassette Recorder and accessory equipment. Please read it carefully before operating your video product and keep it in a handy place for future reference.

INSTALLATION

1 Read and Follow Instructions -- All the safety and operating instructions should be read before the video product is operated. Follow all operating and use instructions.

2 Retain Instructions -- The safety and operating instructions should be retained for future reference.

3 Heed Warnings -- Comply with all warnings on the video product and in the operating instructions.

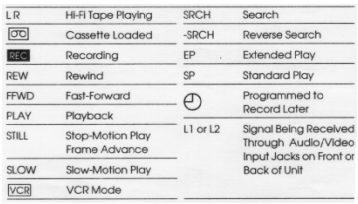
4 Polarized Plug -- This video product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted without blade exposure. If you need an extension, use a polarized cord.

5 Power Sources -- This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your video dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.

6 Overloading -- Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock. Overloaded AC outlets and extension cords are dangerous, and so are frayed power cords, damaged or cracked wire insulation and broken plugs. They may result in a shock or fire hazard. Periodically examine the cord and have it replaced by your service technician if appearance indicates damage or deteriorated insulation.

7 Power Cord Protection -- Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

8 Ventilation -- Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the video product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the video product on a bed, sofa, rug or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the video product manufacturer's instructions have been followed.



L R	Hi-Fi Tape Playing	SRCH	Search
OTC	Cassette Loaded	-SRCH	Reverse Search
REC	Recording	EP	Extended Play
REW	Rewind	SP	Standard Play
FFWD	Fast-Forward	◴	Programmed to Record Later
PLAY	Playback	L1 or L2	Signal Being Received Through Audio/Video Input Jacks on Front or Back of Unit
STILL	Stop-Motion Play Frame Advance		
SLOW	Slow-Motion Play		
VCR	VCR Mode		

9 Attachments -- Do not use attachments unless recommended by the video product manufacturer as they may cause hazards.

Caution: Maintain electrical safety. Powerline operated equipment or accessories connected to this unit should bear the UL listing mark or CSA certification mark on the accessory itself and should not have been modified so as to defeat the safety features. This will help avoid any potential hazard from electric shock or fire. If in doubt, contact qualified service personnel.

10 Water and Moisture -- Do not use this video product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

11 Accessories -- Do not place this video product on an unstable card, stand, tripod, bracket or table. The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket or table recommended by the manufacturer, or sold with the video product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

11A An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

12 Outdoor Antenna Grounding -- If an outside antenna or cable system is connected to the video product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See example below:
EXAMPLE OF ANTENNA GROUNDING

13 Power Lines -- An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching or approaching such power lines or circuits as contact with them might be fatal. Installing an outdoor antenna can be hazardous and should be left to a professional antenna installer.

USE

14 Cleaning -- Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
15 Object and Liquid Entry -- Never push objects of any kind into this video product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

16 Lightning -- For added protection for this video product during a lightning storm, or when it its left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.

SERVICE

17 Servicing -- Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
18 Conditions Requiring Service -- Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions.
a. When the power-supply cord or plug is damaged.
b. If liquid has been spilled or objects have fallen into the video product.
c. If the video product has been exposed to rain or water.
d. If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
e. If the video product has been dropped or the cabinet has been damaged.
f. When the video product exhibits a distinct change in performance - this indicates a need for service.
19 Replacement Parts -- When replacement parts are required, have the service technician verify that the replacements he uses have the same safety characteristics as the original parts. Use of replacements specified by the video product manufacturer can prevent fire, electric shock or other hazards
20 Safety Check -- Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks recommended by the manufacturer to determine that the video product is in safe operating condition.

Getting Started

Relax. Using a VCR is very straightforward.
This sections explains how to hookup the VCR, quick tour of the controls, set up for first-time operation using on-screen menus, and videocassette tapes.
Enjoy getting to know all about your Hitachi VCR. Let's get started.

Simple Hookups

1 Decide Where to Put Your VCR

Be sure your chosen location allows for proper ventilation, stability, and protection from heat and moisture (see Important Safeguards).

Place the VCR near your TV but not on top of it. For convenience in using the remote control, locate them no more than three feet apart.

If you have an external cable or antenna, place the TV and VCR where you have ample cable to hook them up. If necessary, you can purchase a cable extension and connector.

If you plan to route your VCR audio through your stereo speakers for better sound reproduction, place the VCR near the stereo receiver, or have enough long audio cables to make the connections. (But keep in mind that the electronic signal weakens the further it has to travel.)

2 Decide Which Hookup Method to Use

To make your VCR function, you'll deal with two basic hookups:
1. *The audio and video signal:* If all you want to do is view a prerecorded videotape on the VCR, this three-line hookup is the only one you need.
2. *The radio frequency (RF) signal* from a cable or antenna: Make this hookup if you also want to record programs, or if you have no audio/video connectors on your TV.

We will show you the simplest hookups first and then present several variations to suit specific needs. Be aware that you may need to purchase additional connectors to make the desired hookup. These are available at video stores and electronic hardware stores.
Choose which hookup method to use based on:

Your TV's capabilities

The type of antenna or cable system you have (for cable box hookup, see Advanced Operations)

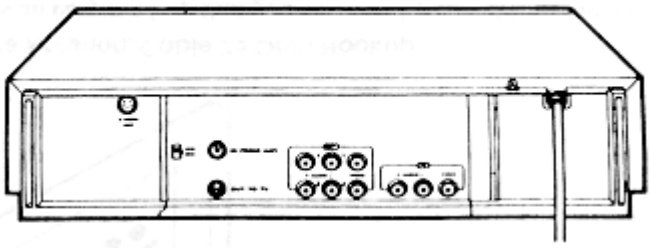
Any other devices you want to include in the system (stereo, second VCR, etc.)

We will guide you through this process. But first, turn the TV and the VCR around so you are looking at their backs. Note the various input and output receptacles, their shapes, and how they are labeled. Then read through the rest of this hookup section before proceeding to an actual hookup.

DO NOT TURN ON THE POWER YET. FOR YOUR SAFETY, LEAVE YOUR TV AND VCR UNPLUGGED WHILE HOOKING THEM UP.

3 Hook Up the Audio/Video Signal

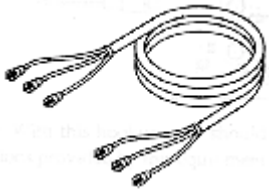
If your TV is a fairly recent model, you probably have both audio and video jacks. Look on the back of your TV for three jacks - possibly color-coded yellow, white and red. They will be labeled something like IN (L and R), AUDIO IN, or VIDEO IN. (If you are not sure, look at the back of your VCR - you will see three sets of these jacks.)



If you have no jacks like these on your TV, skip this step and proceed to Step 4.

TV with Audio and Video Jacks

If you do find *all three jacks* on your TV, you need a supplied three-line audio/video cable with bell (RCA) connectors, like this:



Connect the yellow VIDEO OUT jack on the VCR to the VIDEO IN jack on the TV. This direct video input will give you the best picture. It will also let you play videos in a "picture in picture" feature, if your TV has it.

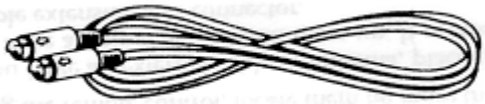
Then connect the AUDIO OUT jacks (red and white) on the VCR to the AUDIO IN jacks on the TV (Left to left, right to right).

This audio hookup will give you better sound than the RF signal hookup, because the electronic signal won't have to go through a conversion process. Plus your VCR has a stereo decoder, which your TV might not. For big speaker sound, you can also use these jacks to connect the VCR to your stereo system (page 64).

Capabilities: The audio and video signal connections are all you need to play back a prerecorded tape. If you do not intend to record on your VCR from your antenna/cable, then you're all hooked up now. Otherwise, continue with Step 4, which will let you record off TV channels.

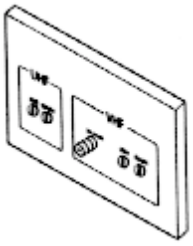
TV with S-VIDEO Jack

If you do find a S-VIDEO jack on your TV, you need a supplied S-video cable, like this:



Connect the S-VIDEO OUT jack on the VCR to the S-VIDEO jack on the TV. When you make the above connection, you need not connect VIDEO IN and VIDEO OUT jack. This direct S-VIDEO input will give you the best picture.

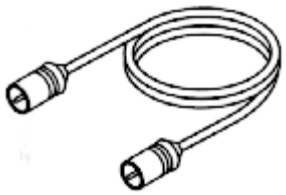
4 Hook Up the RF Signal



Look at the back of your TV for a connector that looks like one of these, and follow the corresponding hookup option. If you have any sort of cable box, see the hookup options in Advanced Operations (page 60).

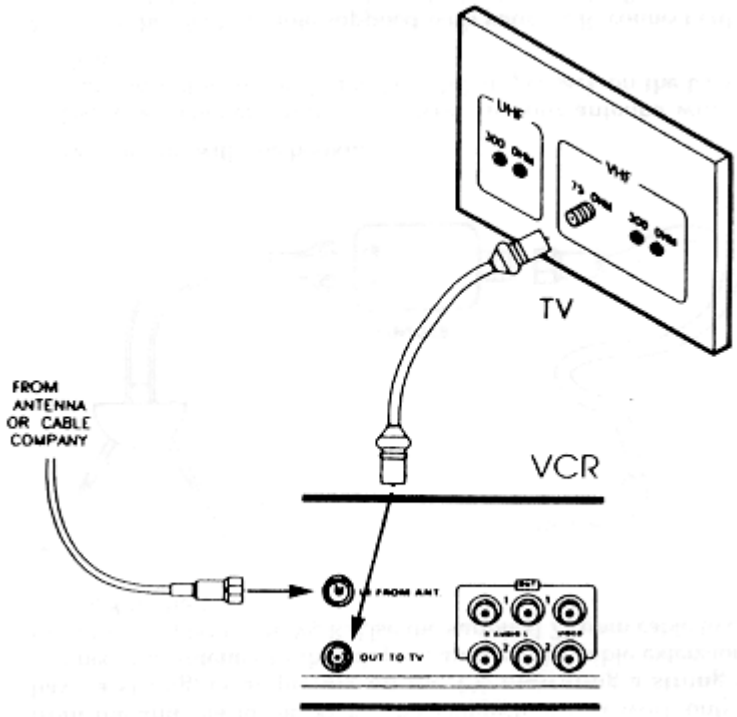
Simple Antenna/Cable 75 Ohm Hookup

This is an easy hookup that you can use if your cable or antenna has a 75 ohm round wire connector. You will need the 75 ohm cable supplied with your VCR. It looks like this:



If you have been watching the TV in your home before getting the VCR, you will already have a round wire attached to your TV. Otherwise, look for a cable connection coming in through the wall from outside. (If you find this connection, remember to call your local cable company to start the service.)

1. If still hooked up to your TV, unscrew the round wire from the 75 ohm connector on your television. Otherwise, take the wire that comes in from the wall.
2. Screw this round wire into the IN FROM ANT upper jack on the back of your VCR.
3. Using the 75 ohm cable supplied with your VCR, slide on either end to the OUT TO TV lower jack on the back of the VCR.
4. Connect the other end of the same cable onto the 75 ohm antenna input on your TV (where you first disconnected the TV in step 1).

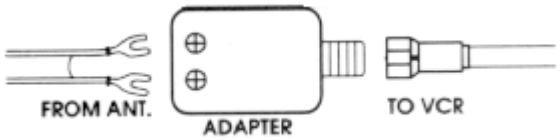
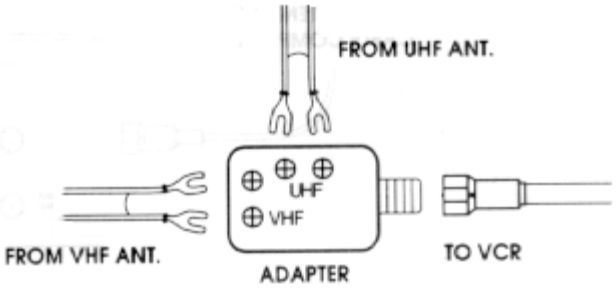
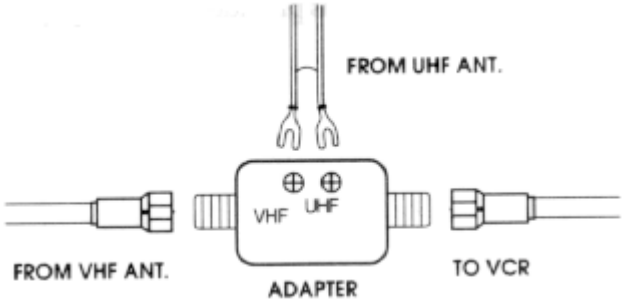


Capabilities: With this hookup, you should now be able to perform all the basic functions provided by this equipment.

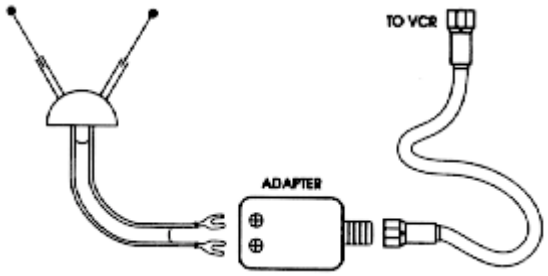
External or Internal 300 Ohm Antenna

If you have either an external or internal (rabbit ears) antenna rather than cable, you may have 300 ohm connectors like these

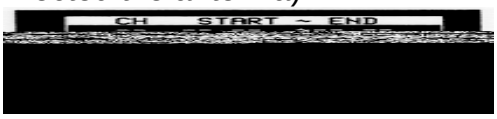
In this case, you will need special adapters to make the 75 ohm round wire connection shown below. (You may already have one on your TV.)
1. Remove the antenna line from the back of your TV if it is already connected there, or take it from where it comes in on the wall.
2. Considering the three pictures below, determine which adapter you will need to hook it into your VCR.

If you have	**Use this adapter**
Single 300 ohm flat wire	
Separate UHF and VHF antenna wires, both 300 ohm flat wire	
300 ohm flat UHF and 75 ohm round VHF	

If you have "rabbit ears" (an antenna on top of your TV), you will need an additional adapter and 75 ohm extension to make your leads reach from the antenna to the VCR. This connection will work only if you have a strong, clear picture on the TV, indicating a strong signal. Connect the antenna to the adapter, and use the cable extension to go from the adapter to the VCR. Use the supplied 75 ohm cable to connect the VCR to the TV.



Now continue with the hookup:
1. Using whichever adapter you have fit your antenna with, attach that connector to the IN FROM ANT upper jack on the back of the VCR.
2. Using the 75 ohm cable supplied with your VCR, connect either end to the OUT TO TV lower jack on the back of the VCR.
3. Use a second adapter to attach the other end of the 75 ohm connector back into the TV (where you first disconnected the antenna).

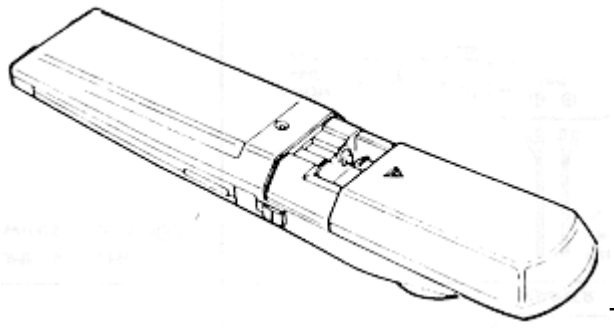


Capabilities: With this hookup, you should now be able to perform all basic functions provided by this equipment.

5 Attach the TV and VCR to the Power Supply

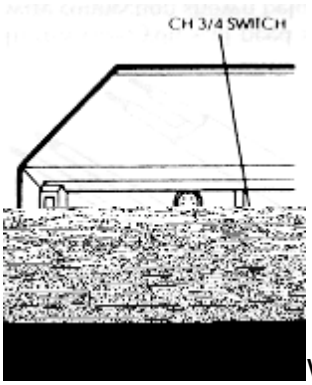
Plug in the TV and VCR power cords to the wall outlet or an appropriate extension cord or surge protector. See Important Safeguards for further precautions (page 6).

6 Install Batteries in the Remote Control



The remote control requires two fresh "AA" batteries. On the back of the remote, a plastic cover slides off in the direction shown by the arrow. Remove this cover and install the batteries, matching the plus end of each battery with the plus mark on the remote.

7 Set the RF or Video Channel Switch



When the VCR is on, its video signal can come into your TV on either channel 3 or channel 4. You need to select the appropriate channel.

Turn the power on to both the TV and the VCR, and look for a switch on the back of the VCR. Set the switch to 3 or 4, whichever is not a commercial channel in your area.

Your basic hookup is now complete. When you're ready to try hooking up a second VCR, a video camera, or a stereo for a complete home entertainment system, see Advanced Operations.

Now turn the TV and VCR back around facing you and begin your quick tour of the controls (page 16).

Getting Started (Controls)

Quick Tour of the Controls

Study these pictures carefully to learn about the buttons and controls that you'll need for everyday operation. Various controls are explained throughout this manual as they are needed, but now is a good time to get familiar with their locations.

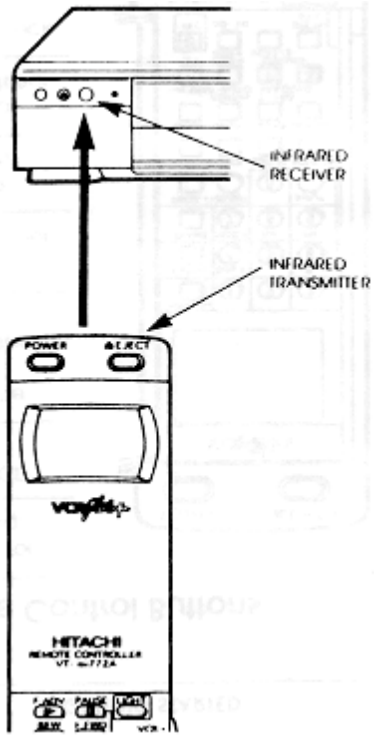
Most of the time, you'll be directing the VCR from the remote control, but there are some controls on the VCR that will come in handy too.

When you're familiar with these basic controls, proceed to Initial Setup (page 23). We'll show you how to program your local channels.

How the Remote Control Works

Pressing a button on the remote control transmits an invisible beam of light (infrared) to a receiver at the left front of the VCR.

When using the remote, aim the front end toward the VCR and make sure nothing - such as a coffee table or your dog - is blocking the path of the infrared beam.



Remote Control Buttons

Remote Control Illustration (door closed)

POWER Turns the VCR on and off.

F.ADV Lets you advance the tape frame by frame.

PAUSE Temporarily stops the cassette from recording or playing. Press PAUSE again to resume.

REW Rewinds the videotape.

F.FWD Fast forwards the videotape.

TV VOL. Increase or decrease the audio volume.

PLAY Starts playing a loaded videocassette.

STOP Stops a videocassette from playing, recording, pausing, rewinding - or anything it is doing.

TV/VCR/MUTE Switches between viewing through the VCR and not viewing through the VCR when the VCR/CATV/TV switch is set to VCR. Turns off the audio until you press this button again when the VCR/CATV/TV switch is set to TV.

EJECT Unloads a cassette tape from the VCR.

LIGHT Illuminates key function buttons for a few seconds.

VCR/CATV/TV Device buttons let you set the remote to control one of the three devices.

CHANNEL Top button switches to next higher channel, bottom button switches to the next lower channel. For these to operate, you must have preset your channels.

JOG/SHUTTLE Turns Jog/Shuttle function on and off.

Jog Dial Moves the tape forward one frame at a time.

Shuttle Dial Controls the videocassette's forward and reverse motion with one convenient dial.

TITLE/LAST CH Used for title making and switching to the TV channel you were watching previously during the current viewing session.

Remote Control Buttons

Remote Control Illustration (door open)

VCR PLUS+ Used for VCR PLUS recording.

ENTER Used for VCR PLUS recording.

TRANS Transmits the information in the remote control to the VCR.

PROG Used for programming the timer.

+100/ENT Used to select the channels.

CORRECT Used for programming the timer.

CLOCK Used for clock setting.

GUIDE Brings up an on-screen setup and programming guide, the Easy Guide System.

MODE/REMAIN Switches the VCR display.

TAPE SPEED Switches between standard play (SP) and extended play (EP).

REC Starts recording on the station the VCR is set on.

0 to 9 Number buttons used for programming the timer. Can also be used to change channels. (Simply press 2 or 3 digits for the channel you want - such as 0 and 6 for channel 6, or 100/ENT and 2 and 4 for channel 124.)

INPUT Used for recording from an auxiliary input such as a stereo system.

DISPLAY Used in on-screen programming and indexing.

MONITOR Controls how the audio signal is processed by the VCR.

CLEAR Used for programming the timer.

MEMORY Used for indexing.

AUTO Lets you fine tune the picture automatically.

TRACKING Lets you fine tune the picture.

GO-TO/INDEX Used for marking and searching for specific tape location.

VCR 1/2 Device button lets you set the remote control to VCR1 or VCR2.

SPECTRA SONIC Emphasizes the bass sound from the AUDIO OUT jacks.

When the Remote Doesn't Work Right

Check out these possibilities:

Low Battery
If the remote is not working even at close range, try putting in two fresh AA batteries.

Objects in the Way
There may be objects between the remote and the VCR - for instance, a stack of books on the coffee table, your 2-year-old, the dog. Hold the remote so that it points at the VCR with nothing in the way.

Set to Wrong Device
It may be set to VCR2 when you're trying to control VCR1. To confirm that this is the case, try setting VCR/CATV/TV switch to VCR and a function button (like channel up or down). If the remote does not work now, you know that it's set to VCR2. To reset it to VCR1, refer to the on-screen Initial Setup options.

If You Just Want to Watch TV

For normal TV viewing, you do not need to disconnect the VCR. When the TV and VCR are already on, press POWER on the remote control. The VCR will shut off, but the TV will stay on.

If you are recording on the VCR but want to watch a different channel on the TV, press the VCR/TV button to switch back and forth between the TV channel and the recording channel.

Front panel Illustration

POWER Turns VCR power on and off.

EJECT/OPEN Press to eject a cassette or open the cassette door.

CASSETTE DOOR When you bring a cassette near to the door, the VCR senses it automatically and slides the door down. When a cassette is inserted, the door is closed automatically.

DISPLAY Shows time, channel, and status indicators.

REW Rewinds the videotape.

PLAY Plays the loaded videotape.

F.FWD Fast forwards the videotape.

STOP Cancels any videotape action.

PAUSE To interrupt play or recording. Press again to resume.

REC LEVEL Controls the recording level.

A.DUB Used for audio dubbing. See AUDIO DUBBING section on page 67.

V.DUB Used for video dubbing. See VIDEO DUBBING section on page 69.

CHANNEL Up and down arrows for selecting channels.

AI Adjusts the played back pictures.
SHARP: Reduce the deterioration of the picture when dubbing the tape.
NORMAL: Usually set this position.
AI ON: Improves the quality of the played back picture of a rental tape.

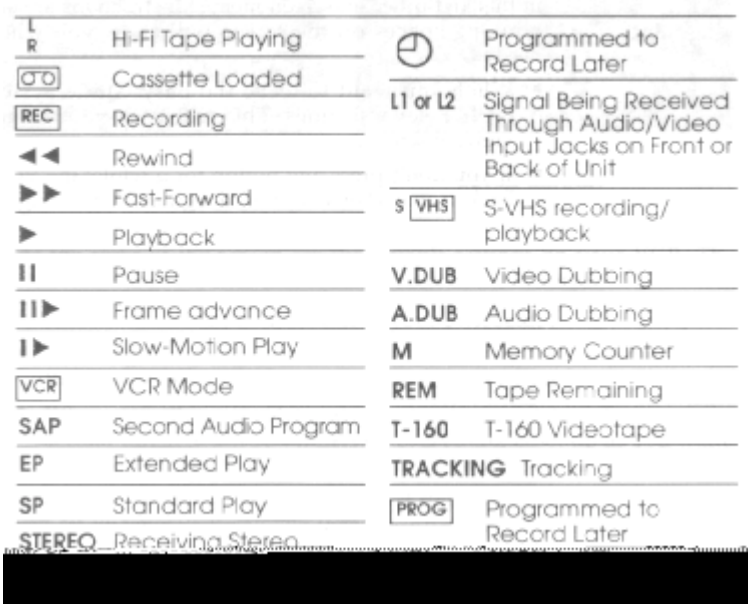
PHONES LEVEL Controls the output level of headphones.

S-VHS Select S-VHS or normal VHS for recording.

IRT/START Used for simplified delayed recording. See USING THE INSTANT RECORDING TIMER section on page 43.

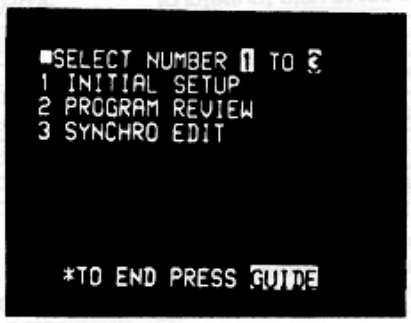
REC/LENGTH To begin recording.

Display Indicators



Meet Your On-Screen Guide

Your Hitachi VCR has as a special feature called the Easy Guide System. This feature guides you through simple setup and programming tasks right on the TV screen.
With the TV and VCR turned on, press GUIDE on the remote control. You will see this screen:



Now, you will do most of your programming and setup by pressing numbers on the remote control which correspond to options presented in this and other on-screen menus. Instructions are easy to follow, and blinking spaces on the screen will show you where your input is needed.

When you want to leave the Easy Guide System, simply press GUIDE several times. This will back you out to the normal TV viewing screen.

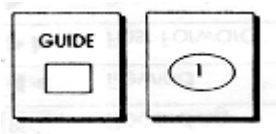
If you don't press any button for a while, the VCR will switch you back to an earlier screen or to regular TV viewing.

Getting Started (Initial Setup)

Setup for First-Time Operation

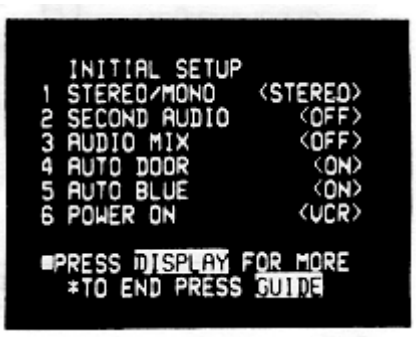
Before you use your VCR to watch or record from your TV, you need to "tell" the VCR whether your TV uses cable or antenna input and let it program itself to receive your TV's channels. It's also a good idea to set the clock so you can do timed recording later. With your TV and VCR hooked up, turn them both on and follow these steps using the remote control.

Initial Setup Options



Press GUIDE, then press 1 to bring up the Initial Setup screen.

First Initial Setup Screen



Second Initial Setup Screen

At the right of the screen are the default settings on your VCR. The default settings are the ones that are preset at the factory. Look at each item to see if it matches your own setup:

To change a setting, press the button that has the same number as that item, this will cycle you through several options.

When everything is set up as you want, press DISPLAY to set the second Initial Setup Screen. When everything is set up as you want, press GUIDE twice to back out the Easy Guide System.

You need to set items 1 and 2 on the First Initial Setup Screen the first time you set up your VCR and any time you have a lengthy power outage. The rest of the items can be set later as needed.

Here is what the options in the First Initial Setup Screen mean:

1 ANTENNA/CABLE Press 1 to select the type of receiving setup you have:

<ANT.> Internal or external antenna

<CATV1> Ordinary cable

<CATV2> Alternate cable (if CATV1 doesn't give you the channels you expect)

2 AUTO CHANNEL SETTING Press 2 to automatically program the VCR to receive all the channels that come in on your antenna or cable.

3 ADD OR ERASE CHANNEL Press 3 to bring up a screen that lets you add new channels or limit the channels to the ones you most often watch.

4 VCR CODING Press 4 to enable the remote control to control a second VCR. Options are <VCR1> and <VCR2>.

5 MOVIE RETURN Press 5 to select whether you want prerecorded movies (safety tab removed) to play automatically when loaded, and then rewind, eject, and turn off the power when done. Options are <ON> and <OFF>.

6 ENDLESS PLAY Press 6 to play the tape from the beginning to the end repeatedly. Options are <ON> and <OFF>.

7 AUTO DATE MEMO Press 7 to record the date and channel at the beginning of the recording. Options are <ON> and <OFF>.

Here is what the options on the Second Initial Setup Screen mean:

1 STEREO/MONO Press 1 to control how the audio signal is recorded and sent to the TV. Options are <STEREO> and <MONO>.

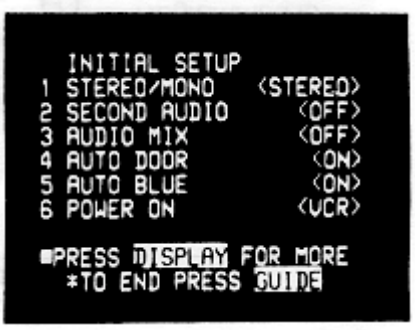
2 SECOND AUDIO Press 2 when you are ready to record a second audio program. Options are <OFF> and <ON>.

3 AUDIO MIX Press 3 to hear the audio signal which is recorded on the tape. Options are <ON> and <OFF>.

4 AUTO DOOR Press 4 to open the cassette door automatically when the cassette is close to the cassette door. Options are <ON> and <OFF>.

5 AUTO BLUE Press 5 to set the TV screen to be blue when a channel which is not transmitting a signal is selected. Options are <ON> and <OFF>.

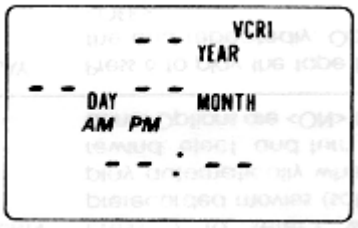
6 POWER ON Press 6 to set the VCR to VCR or TV mode when the VCR power is turned on. Options are <VCR> or <TV>.



Setting the Clock

This is easy to do and important for your later timed recordings.
You'll need to set the clock when first hooking up your VCR, and any time the power goes out more than 30 minutes.
When you first plug in the VCR or after a power outage, the clock display will read "--:--".

To set the clock, first set the clock on the remote control, then transmit the information to the VCR. Press CLOCK once.



Press 8 or 9 on the remote control for AM or PM, respectively.
Then, press the number buttons to set the current time - two digits for the hour and two for the minutes.
For example, if it is now 2:15 PM, press 9 for PM, press 0, 2, 1, and 5 for hours and minutes.
Continue pressing buttons to set the date. For example, if today is July 8, 1994, press 0, 8, 0, 7, 9, and 4 to get 08/07/94.
Press CLOCK and then press TRANS while aiming the remote control at the receiver on the VCR. The clock will appear in the VCR's display. When you're done, press CLOCK again to return to regular display on the remote control.

Tips:

The item to be changed will blink on the display as you go.
The clock uses the 12-hour system. You set it for AM or PM.
An illogical time (like 13 for the hour or 20 for the month) will not be accepted.
The day of the week is set automatically.

The VCR power may be on or off for transmitting the clock information to the VCR.
If you press the wrong digit, press the CORRECT repeatedly until the digit to be corrected flashes and then correct it.
Set the VCR/CATV/TV switch to VCR for setting the clock.
If the clock does not appear in the VCR's display when transmitting, press VCR 1/2 and then press TRANS.
To correct the VCR clock after transmitting the information, press CLOCK so that TRANS is flashing. Correct the clock in the remote control. Press CLOCK again and then press TRANS to transmit the corrected information to the VCR.

More About Channel Selections

Your VCR is capable of receiving 68 broadcast TV channels (VHF 2-13, UHF 14-69) and 125 cable channels (CATV 1-125).
When you press 2 on the First Initial Setup screen, the tuner automatically cycles through all available channels in your area and places them in memory. This takes 2-3 minutes. You can watch the progress on the VCR's display - when the channel numbers stop changing, programming is complete.
In some areas channels cannot be switched when CATV1 is selected. Then, select CATV2 in your Initial Setup screen.
For convenience, the TV channel numbers should match those programmed into the VCR. If your TV has automatic channel programming, set it on the same mode - ANT, CATV1, or CATV2 - and let it reprogram to match the VCR.

Once channels are preset, you can use the up and down CHANNEL buttons to move through the active channels. Or you can press the number buttons to move quickly between channels that are far apart.

Removing Channels
You may not want to keep all the stations the auto-programmer selects, since you may prefer to have only a few favorite channels in the tuner's memory. Or, you may want to delete from memory a weak or unused channel that the tuner picked up.
Erased channels cannot be selected by the up and down CHANNEL buttons but can still be selected by using the numbered buttons 0 to 9 and 100/ENT.

Adding Channels
Occasionally the auto-programming may skip an active channel because the antenna was pointed in the wrong direction or the channel had a weak signal or was "off the air" at the time of programming. Or you may change your mind about a channel you removed from memory.

To Add or Erase Channels
Press GUIDE, then press 1 to bring up the First Initial Setup screen. Item 3 lets you add or delete channels. Use the number buttons to enter the channel you want to change, then press STOP to delete it or press PLAY to add it.

Choosing a Mode for Audio Playback

Choose between hi-fi and linear modes by pressing AUDIO MONITOR on the remote control, depending on your needs.

HIFI is the preferred setting because it works for all tapes whether they were recorded in hi-fi or linear modes. If the audio sounds distorted or unusual or there is no audio, try the LINEAR option.
When you set the option to HIFI, hi-fi tapes will play in high fidelity, and non-hi-fi tapes will play in linear mode.

When you set to HIFI, L and R on the level meter in the VCR display will light.

Hi-Fi sound is the same quality as that of a compact disc player. It's dynamic range of over 90dB will record either stereo or monaural broadcasts with the highest quality possible. Linear sound, on the other hand, will record monaural sound using the same format as a non hi-fi VCR. Stereo programs are recorded in hi-fi on both the left and right channels and also recorded on the linear track as monaural.

Stereo vs. Mono Sound

When you select the STEREO option, your VCR records in stereo any station that broadcasts stereo sound. When a TV channel broadcasts in stereo, you'll see a stereo indicator on the VCR display.

STEREO is the normal factory setting because it works for both stereo and mono broadcasts. It is also necessary for recording a second audio program (SAP).
When you select MONO, sound is recorded as mono even when a channel broadcasts in stereo.
Use the MONO setting when the stereo signal is not strong enough for quality reception (for example, when there is signal drift or noise).

Getting Started (Videotapes)

About Videocassette Tapes

Types

The best thing you can do for your VCR is use the best quality tapes available. This VCR uses S-VHS or VHS tapes only, which are the most common type. Look for the S-VHS or VHS mark on new or prerecorded tapes you buy.
Tapes are marked T-120, ST-120, T-160 or ST-160, which signifies how many minutes of programming they can hold at standard recording speed (SP). To get the best quality picture, record at standard speed. But if you want to get more on a tape and are less concerned about the quality, set the VCR for extended play (EP).

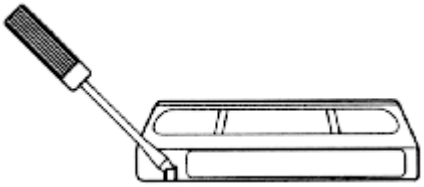
Tape Capacities at Different Speeds

TYPES	RECORDING TIME	
	SP	EP
T-120/ST-120	120 min.	360 min.
T-160/ST-160	160 min.	480 min.

You may have noticed that there is also an LP speed. You Hitachi VCR does not record at this speed, but it can play cassettes that were recorded in LP mode. No special setting is required for playback.

Safety Tabs Prevent Erasure

A safety tab is located on the front left edge of every videotape next to the label. Break this tab off if you want to keep a special tape from being erased accidentally. (Notice this tab is already removed on prerecorded tapes you buy or rent.) Poke a screwdriver or similar tip into the space behind the tab to break it off.
Don't worry, you can change your mind and record on this tape even after the tab is broken off - simply cover the hole with cellophane tape.

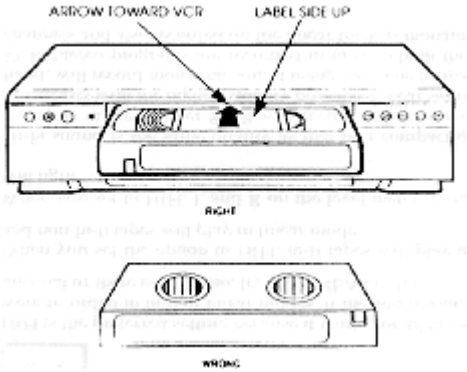


S-VHS

S-VHS system has realized high resolution (a horizontal resolution of 400 lines or more) and high picture quality when compared to the standard VHS system.
Use a videocassette with an mark. Cassettes with an mark can be recorded in both the S-VHS and VHS formats. When an tape is recorded in the VHS format, press S-VHS button on the VCR sot that the S-VHS indicator in the VCR's display goes off.
You can use cassettes with a mark, but the recording will be in the VHS format.
Tapes recorded in the S-VHS format can be played only by recorders with an mark.
This VCR discriminates between the S-VHS and VHS recording formats automatically in playback.

Loading and Ejecting

When you load a videocassette into the VCR, there is only one right way! Most tapes show you the way with a little arrow on the top side which should go in first.



Bring the videocassette near to the door and the door opens automatically. Push the videocassette gently into the slot on the front of the VCR. You will feel the VCR take it in. The door closes automatically.
When the cassette is all the way in, the VCR powers up automatically and a TAPE-IN indicator shows on the display. It may also start playing immediately if the safety tab has been removed and if you have set the MOVIE RETURN function to ON.
To remove the cassette, simply press the EJECT/OPEN button on the VCR or the EJECT button on the remote control.
Now you can take the cassette out and put it away.

Tips

When a cassette is already in the VCR, the door does not open even if the another cassette is brought near to the door.

The door can also be opened and closed by pressing the EJECT/OPEN button.

Do not force the door open or close with your hand.

The door may open even when an object other than cassette is brought close to the

door. After several seconds, the door will close automatically.

If you have set the AUTO DOOR function to OFF in the Initial Setup Screen, the door does not open when the cassette is brought near to the door. You can open the door by pressing the EJECT/OPEN button on the VCR.

If you use the VT-S772A with another electronic device and operate the remote control provided with another device, this device may malfunction. In this case, move the VT-S772A or set the AUTO DOOR function to OFF.

Tape Storage

Store your videocassettes in their jackets and in an upright position (like books in a bookshelf) away from any magnetic sources. Resist the temptation to leave them lying flat on top of the VCR. Tapes will last longer - and so will your VCR - if you store them properly. Remember, dust, dirt and liquids are enemies of your tapes and VCR.
To avoid aggravation later, apply the labels that come with new tapes. On them, write notes to yourself about what you recorded.

Basic Operations

Practice starting and stopping a video you've rented - play it through, see how it automatically rewinds.
Get a blank tape and try recording a TV show. Then you'll know how to use the VCR when you need to - or where in the manual to find the instructions you forgot. Let's go!

Viewing a Videocassette

To play Back a Recorded Tape

1. Insert the cassette, arrow-side forward, into the slot at the front of the VCR. The power comes on automatically and the tape indicator lights on the display.
2. Turn on the TV and select the video channel (3 or 4) using the number buttons on the TV's remote control.
3. Press PLAY to start the tape.
4. Press STOP to end play.

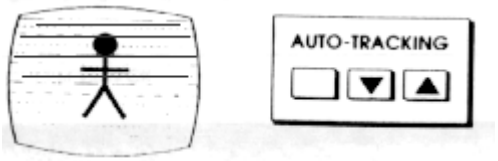
Direct Video Input to the TV
Normally you would select channel 3 or 4 on the TV to receive a signal from the VCR. You can get an even better picture if your TV has an auxiliary video input feature and if the TV and VCR have a direct video-to-video hookup. If this is the case, do not select channel 3 or 4. Instead:

Press the AUX or VIDEO button on the TV's remote control to select the proper input channel for playback.

To Fine Tune the Picture

Auto Tracking

Pressing PLAY starts the auto tracking feature, which adjusts the tuning to eliminate static lines that may appear on the screen.



Manual Tracking

Scratched tapes or poorly recorded tapes may require additional picture adjustment. You can do this with the remote control. Press either of the TRACKING buttons (down or up arrows) until picture clears up.

After operating the tracking manually, press AUTO TRACKING button on the remote control to reactivate auto tracking.

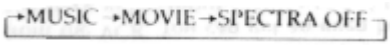
Rewinding the Tape

When you are done watching a video, you can rewind the tape automatically or manually. If the video cassette reaches the end of the tape, the VCR will stop and automatically rewind the video cassette. If you press POWER while the tape is rewinding, the power will shut off automatically after the tape has completely rewound.

Manual Rewind

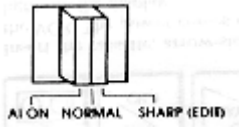
Spectra Sonic Sounds
You can emphasize the bass sound from the AUDIO OUT jacks during playback or TV viewing.

Every press of the SPECTRA SONIC button on the remote control changes the TV screen as follows.



MUSIC: Select MUSIC when you are watching the music program.
MOVIE: Select MOVIE when playing a prerecorded tape (especially a movie).
SPECTRA OFF: Select SPECTRA OFF when you do not want to emphasize the bass.

Picture Control
You can adjust the played back picture by using the AI switch.



SHARP: Select this position when using this VCR for playback when dubbing a tape to another VCR.
NORMAL: Normally select this position.
AI ON: Select this position when playing a rental tape.

Special Playback Effects

Part of the fun of video watching is being able to stop the action and take a closer look or repeat a favorite scene. You can view the tape in a variety of modes selected from the remote control.

Still Playback (Pause)
Press PAUSE to still the tape during play. The picture will "freeze". You may see some minor noise or interference on the screen. This is normal.
After 5 minutes in PAUSE mode, the VCR automatically switches to STOP mode to protect the tape.
If the screen jitters during PAUSE, use the remote's TRACKING buttons to minimize it.
To resume play press PLAY or PAUSE again.

Frame Advance
While in PAUSE mode during playback, press F.ADV to view the video one frame at a time. Press PLAY or PAUSE to resume play.

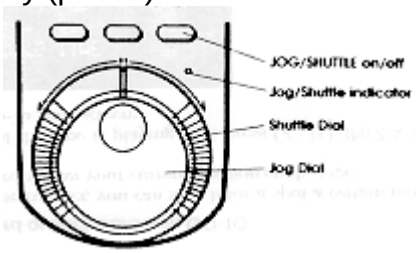
Skip Playback
While playing back your tape you can skip forward by pressing the F.ADV button. The tape will search ahead for about a minute and then resume playing.

Slow Motion

To slow the playback speed to exactly the pace you want, press PLAY and PAUSE buttons at the same time.
Use the TRACKING buttons to minimize any visual noise bands on the screen.
After 5 minutes in slow motion playback, the VCR will stop the tape automatically to prevent damage to the tape and the VCR.
To return to playback at a normal speed, press PLAY. To stop the tape, press STOP.

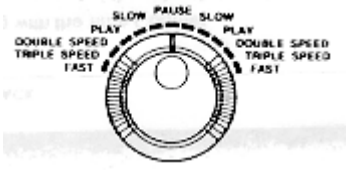
Using the Shuttle and Jog Controls on the remote control
The shuttle feature lets you control all the playback functions - play, pause, slow motion, double speed, triple speed, and search - using one convenient dial.
The jog feature lets you control the frame by frame picture - using one convenient dial.

How to use the jog dial
Press the JOG/SHUTTLE on/off button to turn on the jog/shuttle indicator, then turn the jog dial during playback or still play (pause) for forward or reverse frame advance.
Every time the jog dial is brought to where a slight click is felt, the picture moves one frame.
Release your hand for still play (pause).



How to use the shuttle dial
Press the JOG/SHUTTLE on/off button to turn on the jog/shuttle indicator, then turn the shuttle dial during playback.

Tips
Release your hand from the shuttle dial for still play.
To go back to normal play, just press the PLAY button.
If reverse slow-motion playback continues for more than one minute, the VCR will automatically go back to stop mode.
The picture may have noise, streaking or other distortion when it changes.
If noise bars appear on the TV screen during slow/reverse slow/still mode, first set the VCR to slow mode and then press TRACKING control button (S-VHS or ▼) to minimize noise bars. Now the noise bars in still mode are eliminated automatically.
After adjusting the tracking during slow mode, set the VCR to reverse slow mode and then press TRACKING control button (S-VHS or ▼) to minimize noise bars.



To Find Specific Sections on a Tape

Visual Search

This function lets you search backward and forward through the videotape while viewing it.

Using the remote control and VCR:

Press PLAY and then REW to search in reverse.

Press PLAY and then F.FWD to search ahead.

Press PLAY again to return to to normal playback.

For higher search, press and hold F.FWD or REW during playback.

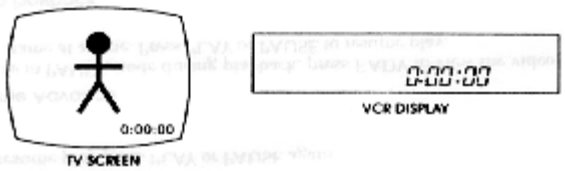
Release the button to return to normal playback.

Using the SHUTTLE dial on the remote control:

Press PLAY and turn the dial to the far right or left to search forward and backward.

Searching with the Time Counter

During playback (and recording), a counter keeps track of how many hours, minutes, and seconds the tape has run. Press MODE/REMAIN on the remote control to display the counter in the VCR display. When you first start playback, the counter shows briefly in the TV screen's lower right corner.



When you want to check the counter during playback, there are several ways to do it. Pressing DISPLAY on the remote control will cycle you through the three options.

Press DISPLAY just once to see the counter, mode, time, and date on the TV screen for 5 seconds.

Before the 5 seconds are up, press DISPLAY a second time to see the counter, time and date. It will stay on the screen.

Press DISPLAY a third time to end the on-screen display.

The linear time counter operates only if there is something recorded on the tape. The counter changes to 0:00:00 when the tape is ejected or you press the CLEAR button.

Marking with the Time Counter

If there is one part of the video that you know you are going to want to return to, you can set the time counter to memorize that spot. Begin in either STOP or PLAY mode.

Press DISPLAY twice to show the counter on the TV screen. If the counter does not appear, press MODE/REMAIN once or twice.

Begin recording or playing back a tape. Notice the counter remains on the screen.

At the point that you want to go back to, press CLEAR on the remote control. This resets the counter to 0:00:00.

Press STOP when you are done recording or playing back the tape.

Press MEMORY on the remote control and an "M" will display beside the counter on the TV screen. This indicates that the counter's memory function is engaged.

Now when you rewind the tape, it will automatically stop at the spot where you cleared the counter. (Notice it moves just past the marker and then back to it.) Press PLAY to watch the tape from that preselected spot.

Press MEMORY to take the counter memory off. The spot is still in memory until you

set a new one or until the tape is ejected.

Jump Forward or Backward with GO-TO

Using the time counter, you can search for a spot a certain number of minutes before or after your current position on the tape.

Press STOP, if tape is playing, and press GO-TO/INDEX to bring up the Set Go-To Time screen:

Select minutes by pressing buttons 0 to 9 - one digit for hours, then two digits for minutes. Then press F.FWD if you want to move that many minutes ahead, or REW if you want to move that many minutes backward.

For example, say you want to review a scene that began about 2 minutes earlier in a video, press 0, 0, and 2 to display 0:02 on the screen. Then press REW.

The tape rewinds to the place 2 minutes back from where you began, then starts playback automatically from that spot.

Jump to an Index Mark with INDEX

A quick way to access specific program segments is with the index search feature. This lets you move through a tape that has several recordings on it by searching for the INDEX "mark." This function only works with recordings that have been set up with indexing. You create an INDEX mark every time you press the REC button while recording. For more on how this gets recorded, see the section on Recording a Program (page 41).

This VCR's indexing system is based on the VHS Index Search System (VISS). The new system may not recognize index marks on tapes recorded on older VCRs.

If the VCR is in PLAY mode, press STOP.

Press GO-TO/INDEX on the remote control. This brings up the Set Go-To Time/Index Screen.

Press REW or F.FWD to begin the index search.

The tape rewinds or fast-forwards until an index mark is detected. During this search, the words SCAN AND PLAY display on the bottom of your screen.

When the VCR finds an index mark, it plays 15 seconds of the program that begins at that spot.

If this is the program you were looking for, press GO-TO/INDEX and the VCR will stop searching. Or press PLAY to resume normal playback.

If this is not the program you want, don't press anything. After 15 seconds, the VCR will move to the next mark and play a part of that program. The VCR will continue searching until you press GO-TO/INDEX again or reach the end of the tape.

When you find the program you want and press GO-TO/INDEX, the VCR returns to PLAY mode.

To stop the index search before an index mark is reached, press STOP.
If there are no index marks on the tape, the VCR will just rewind to the beginning or fast forward to the end.

Basic Operations (Recording)

Recording a Program

Before you Record

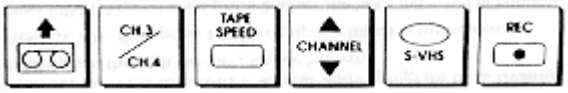
The VCR must be hooked up properly for recording. See the Simple Hookups at the beginning of this manual.

Make sure you are familiar with the Easy Guide System for on-screen programming (page 22) and the basics about videocassettes and VCR safety.

Copyright Infringement Warning

Most television programs and films are copyrighted. This means that someone has legal rights governing the reproduction and distribution of this material. In certain circumstances, copyright law may apply to private in-home taping of copyrighted materials. In most cases, it is okay to record for personal use, as long as you do not sell the material. You must act responsibly in this area - check into the matter if you are unsure.

Basic Recording Steps



1. Load the videocassette into the VCR with the label side up and the arrow pointing toward the VCR. The power comes on automatically when the tape is fully inserted.
2. Turn the TV to channel 3 or 4 (the one you set the switch to on the back of your VCR). Or, if you are hooked up with a direct audio/video cable, set the TV to AUX or VIDEO.
3. Press TAPE SPEED on the remote control to select SP (standard play, for the best picture quality) or EP (extended play, for longest recording time on a single tape). An indicator on the VCR's display shows which speed is active.
4. Set the VCR to the channel you want to record from. Use the up and down CHANNEL buttons to flip through the channels, or use the number buttons to go directly to the channel you want.
5. Press S-VHS on the VCR to turn on S-VHS indicator in the VCR's display.
6. To begin recording, press REC on the remote control or REC/LENGTH on the VCR. Start recording at least 10 seconds before the program starts, to make sure you catch the beginning frames.

Recording will start unless the cassette is protected with the safety tab. If this tab has been removed, the VCR will eject the tape to prevent recording over what is there.

(See About Videocassettes for more about preventing tape erasure.)

Recording Tips

To Watch the Same Program While Recording

To view what you are recording, press VCR/TV on the remote control so that the VCR is selected - the VCR indicator will light up on the VCR's display. You'll want to do this the first few times anyway to be sure you're recording what you think you are.

To Watch One Program While Recording Another

Once you have set the VCR for recording, press VCR/TV on the remote control. Now, you will be viewing through your TV only. Switch channels using your TV controls or the VCR remote, if it's programmed to control your television (see Advanced Operations).

The recording will continue as set on the VCR. If a preset timed recording starts up while you are watching the TV, you'll hear the cassette as it clicks on and see the recording indicator light up on the VCR display.

You can check on the recording by pressing VCR/TV again. This will switch you back to viewing through the VCR, you'll see the program you are recording.

To Skip Commercials

When a commercial comes on that you don't want to record, simply press PAUSE on the remote control. The VCR will stop recording. Press PAUSE again to continue recording when you see the commercial is over. If you stay in PAUSE mode for more than 5 minutes, the VCR automatically switches to STOP mode to protect the tape.

To Change the Channel Being Recorded

Suppose you are recording one program, and you remember that something else is on that you would rather record. You can change the channel while in the recording mode.

Press PAUSE to stop the recording temporarily. This is necessary because the CHANNEL buttons won't work while you are in recording mode - to keep you from accidentally switching the station while recording.

Change the channel to the one you prefer.

Press PAUSE to continue recording.

If you want to leave an index mark where you began recording a different show, you need to press STOP instead of PAUSE. Then switch stations and press REC to resume recording.

To Leave Index Marks on the Tape

This feature is useful when you are recording several programs on the same tape. It helps you quickly find the beginnings of the shows during playback (page 40).

You create the index "mark" every time you begin recording by pressing REC. To leave an index mark between shows, simply press STOP at the end of each show, then press REC to record the next show. (Pressing PAUSE during recording does not leave an index mark.)

During timed recordings, the VCR automatically inserts an index mark at the beginning

of the recording.

To Record a Second Audio Program (SAP)
Some stations transmit a Second Audio Program - such as in a second language. If a station broadcasts in SAP, the SAP indicator will display on your VCR.
You can set the VCR to record a second audio program by activating the SAP option through the Easy Guide System.

Press GUIDE, then press 1 to bring up the Initial Setup screen.

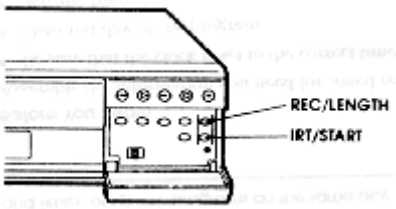
Press DISPLAY, and then press 2 to set the SECOND AUDIO option to ON.

When this is set, the VCR records the second audio program.

Using the Instant Recording Timer (IRT)

The Instant Recording Timer (REC/LENGTH and IRT/START buttons on the VCR) will let you make a simplified timer recording without having to use the programming timer.
In order to set the IRT properly the clock must be set before starting.
Follow the steps 1 through 6 on "Basic Recording Steps" on page 41.
After the recording has started, press the REC/LENGTH button on the VCR again to indicate the recording time on the display.
You can set the recording time length, which increases by intervals of 30 minutes, one hour, one and one half hours, two hours, three hours, and four hours, (i.e. 0:30, 1:00, 1:30, 2:00, 3:00, 4:00) by continually pressing the REC/LENGTH button. While you are recording, the time remaining is shown in the display.
At the end of your recording the display will read "0:00"; recording will then automatically stop and the VCR will turn itself off.
To stop recording while in the IRT mode, press the POWER button and then press the STOP button (this can be done either on the VCR or with the remote control) within 10 seconds.

Delayed Start IRT
You can delay the start of an IRT by using the IRT/START button.



Follow the steps 1 through 5 on "Basic Recording Steps" on page 41.

Press IRT/START on the VCR to set the start time.

The start time may be set to begin on any hour or half hour, up to 24 hours from present.
For example, the present time is 9:15 AM and you want to record a program that starts at 10:30 AM, just press the IRT/START three times.

Press REC/LENGTH on the VCR to set the recording length, which increase by intervals of 30 minutes, one hour, one and one half hours, two hours, three hours, and four hours.

Turn off the VCR power and the IRT will start at the time you selected.

Tips

Press IRT/START for recalling the start time. The display shows start time. To recall the recording length, press REC/LENGTH once while the start time is displayed with the VCR power off.

To clear the IRT program press REC/LENGTH repeatedly until the display reads 0:00. Setting a new IRT program is not possible when a previous program is still stored in memory.

Important: To recall the recording length, press REC/LENGTH only once. If you press the button twice or more, the recording length will be changed.

Tape remaining

This feature automatically calculates and displays the amount of recording or playback tape left on your tape with the exception of the T-160 (eight hour) tape. When the tape remaining feature is used, the tape remaining display appears instead of the linear time counter or clock display - both in the TV screen and the display on your VCR.

If your VCR is in the time counter or clock mode and you wish to use the tape remaining feature, simply press the MODE/REMAIN until the Tape Remaining is displayed.

Any time the tape speed is changed, or when the tape has just started playing, the system will recalculate the tape remaining.

Tape remaining using the T-160 (eight hour)

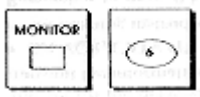
If you are using a T-160 (eight hour) tape, press the CLEAR/T-160 on the remote control while the tape remaining display is being used. The tape remaining will be calculated for the T-160 tape and the T-160 indicator will appear in the VCR display.

Auto power off

If, when you are viewing a TV program, the TV program finishes, the VCR power will be turned off automatically after about 8 minutes.

This function does not operate if you select an external input.

Parent lock



When MONITOR button and button "6" are pressed simultaneously, the buttons on the VCR cannot be operated. This prevents children from operating the VCR without their parents approval.

To release the lock, press MONITOR button and button "6" simultaneously or press the POWER button on the remote control.

Setting the VCR to Record Later

With the delayed recording feature, you can set this VCR so that it automatically

comes on and records programs whenever you like - without your being around! You can record a program one time only, or you can automatically record a show every weekday or every week at the same time. You can preset as many as 8 timed recordings at once.

Recording is even easier when you have set up your channels for VCR Plus+. Learn the basics of delayed recording in this section. Then read about VCR Plus+ beginning on page 50.

We suggest you try all the different ways of programming the VCR when you have some leisure time, so you can learn how it works. That way, when an important show is going to be on that you really want to record, you'll be confident that your timed recording setup will work.

Types of Delayed Recordings

ONE TIME Records one show at a particular date and time.

DAILY Records a show at the same time every day of the week, Monday through Friday.

WEEKLY Records a show at the same day and time every week.

Your VCR can record up to 8 programs at different days and times, or up to 8 programs on the same day.

Before You Begin

Assemble the information you need for timed recording:

Be sure that the clock is set to the correct time.
Date and day of the program
Starting time
Ending time
Channel to be recorded
Blank or erasable videocassette (safety tab intact)

Delayed Recording Steps

You set up the delayed recording using the remote control, and then transmit the information to the VCR.

Set VCR/CATV/TV switch to VCR and press PROG, then follow the flashing instructions on display to complete the programming.

Remember to press 0 before single-digit channel numbers, times, and dates - for example, 0 and 6 for channel 6.

After you enter the channel and time, the VCR automatically shows the current date or the next date, whichever is most logical. Leave the date as it comes up, or enter new digits for the month and day.

You can correct any item entered as you go by pressing the CORRECT button repeatedly until the digit to be corrected flashes on the display. Then, punch in the correct number. Illogical times and dates won't be accepted.

If you want to record from an external equipment, press the INPUT button to select

L1 or L2 instead of the channel number. L1 is for recording from the rear AUDIO/VIDEO IN jacks and L2 is for recording from the front AUDIO/VIDEO IN jacks.

When everything is set as you want (even though some items may still be flashing), press TRANS while aiming the remote control to the VCR to program your settings into memory.

To preset additional recordings, press PROG then repeat these steps. Otherwise, press CLOCK to return to clock display.

Don't forget to load a videocassette to record on.

Your delayed recording settings take effect when you turn off the power on the VCR.

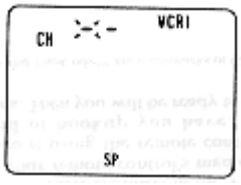
To Stop a Delayed Recording in Progress

Press POWER and then immediately - within 10 seconds - press the STOP button (use buttons on the remote or VCR as you wish).

An Example

Let's say you were interviewed today by a local TV reporter. You're eager to see yourself on the evening news tonight. The news comes on channel 8 at 6 0'clock - but you've got a meeting scheduled during that time. Luckily you just purchased this Hitachi VCR.

Press PROG to bring up the display:



Now fill in the blanks:

Select channel 8 by pressing 0 and 8 on the remote control.

Enter the start time by pressing 9 for PM and 0, 6, 0, 0 for 6 o'clock.

Enter the end time, half past six as 06:30. The VCR automatically selects PM for you.

The display shows today's date, so no changes are needed on that line. If you want to record the daily or weekly program, press 4 for DAILY or 7 for WEEKLY.

Press TAPE SPEED to switch to SP because you want the best quality picture for this recording.

Everything is as you want it, so press TRANS while aiming the remote control to the VCR to set the program in memory.

Insert a videocassette, and power off the VCR. Check for the delayed recording indicator on the VCR's display. Prepare to admire yourself on the evening news.

Reviewing What You Have Programmed

You can look back over any of the recordings you have preset, and if you need to, clear out any of the programs. Normal programs will clear automatically once recording is complete, but daily and weekly settings must be cleared out manually.

Press GUIDE, then press 2 for the PROGRAM REVIEW option. This brings up the screen settings for Program 1. Keep pressing 2 to cycle through all the programs you have preset.

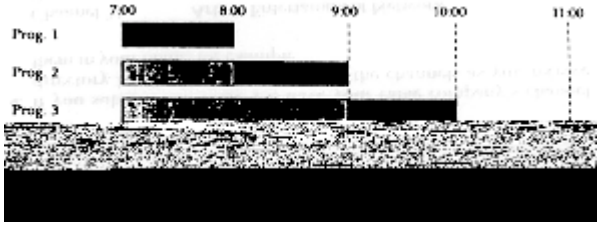
To remove a program, press CLEAR. The screen will display the next program, if

there are more, or it will switch back to the main menu.

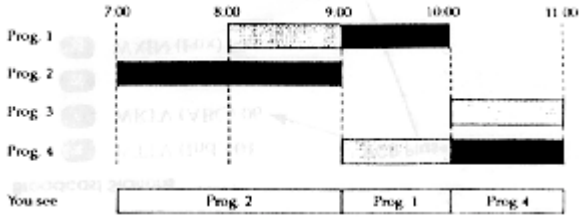
Programming Priorities

When you have set up several timed recordings, it may occur that some of their times overlap. For example, this can happen if you are set up to record shows on a daily or weekly basis, and a special show comes on that you try to record during the same time slot.
The following charts will help you visualize how the VCR prioritizes the preset timed recordings. The darker portions are program segments that *would* be recorded.

Shows with Same Starting Time: By Program Number
If the overlapping programs start at the same time, the VCR records in order by program number (1 - 8). If the shows are all scheduled to start at 7 AM, the VCR starts with program 1 at 7 AM, and switches to what remains of program 2 when program 1 is done recording, and so on.



Shows with Different Starting Times: By Earliest Program
If the programs start at different times, the VCR records the show scheduled to start earliest, records the entire show, then moves on to the show with the next earliest starting time.



To avoid recording only bits and pieces of different overlapping shows, review your programming and delete those shows that are not essential.

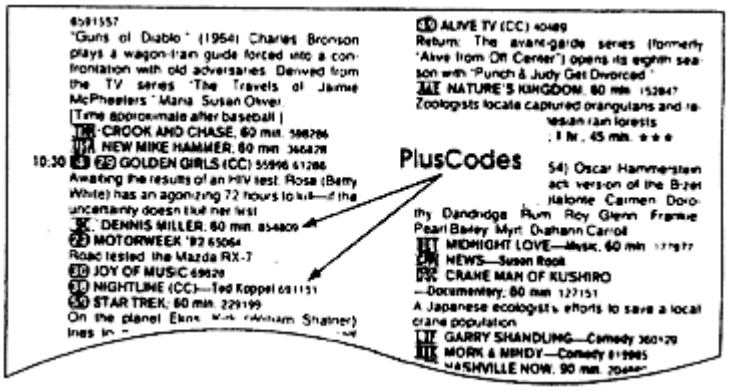
Basic Operations (VCR Plus+ Recording)

Easy Delayed Recording with VCR Plus+

About VCR Plus+

This handy feature makes timed recordings a snap. You don't need to enter the

specific channel, date, time, or duration of a program. All you enter is its PlusCode - a number of up to eight digits. This special code is easy to find in your favorite TV program guide or daily newspaper. Here's a sample page from *TV Guide* showing PlusCodes next to each program.



To get ready to record with VCR Plus+ you need to assign your local broadcast and cable channels to the VCR Plus+ channel codes already stored in your remote control's memory. This is called *channel setup*, and you do it using the remote control. The procedure depends on what kind of hookup you have. We'll give you step-by-step instructions. Then you will be ready to begin VCR Plus+ recording.

VCR Plus+® and PlusCode™ are trademarks of Gemstar Development Corp.

Channel Setup

Before you Begin

Channel setup is easy if you take care of these things first:

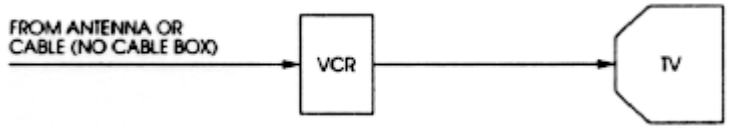
1. Make sure you have programmed the local TV channels into your VCR following the instructions in Initial Setup (page 23).
2. Look for a listing like the one below in your local TV program guide or Sunday newspaper TV section. Notice the small numbers to the right of the station name. These are the VCR Plus+ channel numbers that you will use in the channel setup procedure.

3. If you don't get cable TV, make a list of all the broadcast channel numbers you receive on your TV - for example, channel 4 WTTV (Ind.), channel 20 WFYI (PBS).
4. If you subscribe to cable TV, have your cable company's channel directory handy. This should list all the channels as you receive them in your home, for example:

Channel 34	Arts & Entertainment Network
Channel 35	Turner Network Television
Channel 36	ESPN

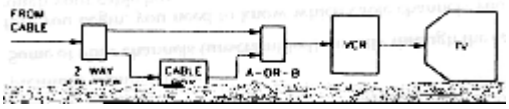
5. Now you're ready to assign your local channels to VCR Plus+ channels in the remote control's memory. The way you do this depends on how your VCR is hooked up to the incoming RF signal. Decide which hookup you have from the diagrams below, and follow the setup instructions for your type of hookup.
Hint: Try several practice recordings after doing your channel setup. You should get the same channels as you usually watch at home.

Home antenna or Cable (no cable box)



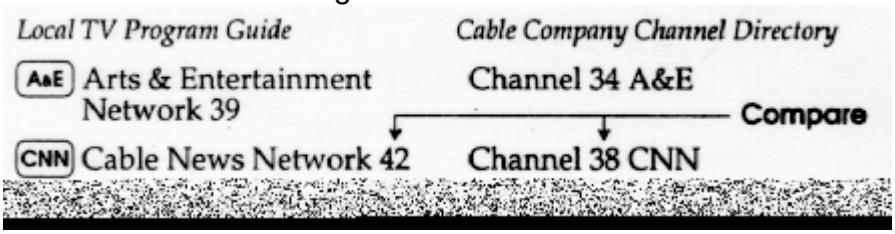
Cable with a cable box

Cable with a cable box and a splitter



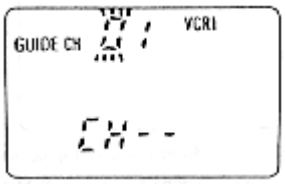
Home Antenna
If your VCR is connected directly to your home antenna, chances are you don't have to do any special channel setup. To find out, compare the VCR Plus+ channels in your TV program guide to your list of channels that you receive at home.
If any channel numbers don't match, follow the steps (page 53) to assign your local channel numbers to VCR Plus+ numbers.

Cable (No Cable Box)
This is the channel setup to use if your VCR is hooked up directly to cable without a cable box.
Compare your local TV channel listing to your cable company's channel directory to find channels that need to be assigned to the VCR Plus+ codes. For example:

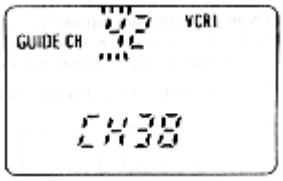


In the example above none of the cable channels match, all of them need to be assigned to VCR Plus+ channel codes.

Matching Broadcast CH Numbers to VCR Plus+ Channels
For Home Antenna or Cable (No Cable Box) Setup
1. Set the VCR/CATV/TV switch to VCR, then press VCR PLUS and ENTER buttons at the same time to select VCR PLUS SETUP.
You will then see this display, as shown below.

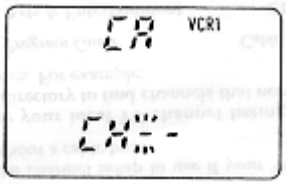


2. If your broadcast channel number is the same as the VCR Plus+ channel in your TV listing, do not enter any number. Press CHANNEL up or down to position a nonmatching station.
3. If your broadcast channel number is not the same as the VCR Plus+ channel in your TV listing use the number buttons to assign the broadcast channel to the corresponding VCR Plus+ channel.
In the example below broadcast channel #38 is assigned to VCR Plus+ channel #42.



4. Repeat step 3 for all channels that need to be assigned.
5. Press CLOCK to end the setup procedure. You are ready to begin delayed recording with VCR Plus+.

Cable with Cable Box Setup
Use this setup procedure if you receive all channels through a cable box. Before you begin, you need to know the output channel number for your cable box. Usually this is either 03 or 04, but it could be 02, 05, or 06. Consult your cable company if you're not sure.
1. Set VCR/CATV/TV switch to VCR, then press VCR PLUS and PROG buttons at the same time to set the cable box output channel. You will then see this display.



2. Use the number buttons to enter the cable box's output channel.
3. Press CLOCK to end the setup procedure. You are ready to begin delayed recording with VCR Plus+. (When you set up a delayed recording, you will need to select the desired channel using the channel selector on your cable box.)

Cable with a Cable Box and Switchbox Setup
This is the right setup if you used Option 3 in the cable box hookups covered in Advanced Operations. With that hookup you have an A-or-B switchbox because you receive:
Some of your cable channels through a cable box (scrambled premium channels), and
Some of your channels (unscrambled) directly through the cable
Before you begin, you need to know which cable channels you receive through your cable box.
You also need to know the output channel number for you cable box. Usually this is

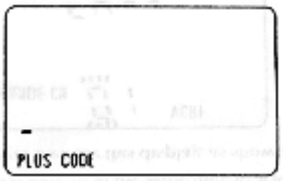
either 03 or 04, but it could be 02, 05, or 06. Consult your cable company if you're not sure.
1. Follow steps 1 through 4 of Cable (no cable box) Setup on page 53 to assign all the unscrambled cable channels. You do not receive all channels through the cable box.
2. When you come to one of the channels that you receive through the cable box, enter the cable box's output channel number (03 or 04). This will assign the scrambled cable channels.

For example, suppose you receive Home Box Office (HBO) through the cable box. Its cable channel is 2 and its VCR Plus+ channel code is 33. Your cable box output channel is 4. You would assign HBO like this:

3. Press CLOCK to end the setup procedure.
4. You are ready to begin timed recording with VCR Plus+. But you will need to use the A-or-B switchbox to select whether you will record from the unscrambled or scrambled channels.

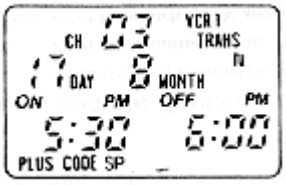
Using VCR Plus+ to Record a Program

Now that your channels are set up, you can take advantage of this quick and easy method of delayed recording. You will use the remote control, following a similar procedure for delayed recording outlined on page 47. See the section on Recording a Program (page 41) for recording tips and programming priorities.
You set up the delayed recording using the remote control.
1. Set the VCR/CATV/TV switch to VCR.
2. Press VCR PLUS and bring up this display.



3. Use the number buttons to enter the PlusCode of the program you want to record. This code can be up to eight digits. If you enter a wrong digit, press VCR PLUS twice and enter the correct one.

4. Press ENTER and bring up this display. If you accidentally enter a nonexistent PlusCode, the remote display gives you an error message that disappears from the display in about a few seconds.



Remember, if you are recording through a cable box, the display will show the

channel as 03 or 04. You also need to manually select the channel you wish to record on.

If you want to change the channel, start time or stop time etc., press CORRECT button repeatedly until the digit to be corrected flashes and then enter the correct digit.

5. Review the display to be sure everything is set as you want, then press TRANS to store the information in the VCR's memory.

When you have set up all the timed recordings you want:

Don't forget to load a videocassette (with the safety tab still attached) to record on.

If you have a cable box hookup with an A-or-B switchbox, set the switchbox to the proper connection for the programs you are recording (through the cable box for scrambled premium channels, direct cable for all other channels).

Important: Your timed recording settings take effect when you turn off the power on the VCR.

Tips

If you want to select daily or weekly recording, press 4 or 7 in step 4.

Choose between standard or extended tape speed by pressing the TAPE SPEED button in step 4.

Caution on VCR Plus+ recording

The VCR Plus+ feature allows you to program the VCR for timer recording by simply entering a PlusCode number up to 8 digits. To prevent erroneous channel and/or time recording; after entering a VCR Plus+ number, check the information displayed with the "PROGRAM REVIEW", if there is (are) any unnecessary program(s), please cancel it (them).

Advanced Operations

This section explains how to use the VCR's remote control to operate your TV. It also shows you how to hook up a cable box and how to connect a stereo or a second VCR for a complete home entertainment system.

Controlling Your TV with the VCR's Remote

Compatibility

The remote control is designed to be compatible with many televisions and cable converters, but will not work with every one made. If your TV or cable box does not respond the way it should when you program it as explained below, this remote may be incapable of operating it.

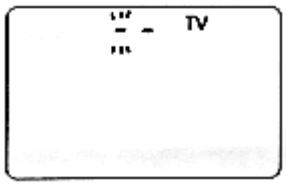
Once you have programmed the remote, you won't have to do it again even if you

change the batteries.

This Hitachi remote control can be used with your TV as well as the VCR, as long as your TV comes with a remote control. This feature comes in handy - you don't have to juggle two remotes.
The remote control is compatible with the fourteen makers of TVs listed below - but don't be alarmed if yours is not on our list. You may still be able to program the remote for your TV.
Every TV that comes with a remote control is set up to detect certain infrared signals. You need to program the VCR's remote control to send signals that your TV will recognize and respond to. Here's what to do:

Programming the Remote Control

Turn the television on (any channel except for 09 is okay).
Aim the VCR's remote control at your TV set.
Set VCR/CATV/TV switch to TV and press PROG button to bring up this display.



Advanced Operations (Remote Control of TV)

Press the number corresponding to your brand of television as shown in the chart below.
For example, if you have an RCA television, press 0, 2. If this sends a signal that matches with your TV, the channel will change on the TV, and you'll know the remote is set to control the television. If that number does not change the TV channel, press POWER on the remote control. You can turn on or off TV's power, and you will know the remote is set to control the TV.
Press ENTER to store in memory and then press CLOCK to return to clock display.
Also, if your brand of TV is not listed in the chart, try all the number buttons. One of them may work for you.
If the TV channel still doesn't change or you can not turn on/off your TV after going through all the button combinations listed, it is likely that you will not be able to program this remote control for your TV.

TV Brands	Number	TV Brands	Number
Hitachi	01	Toshiba	08
RCA	02	Gold Star 2	09
Zenith	03	NEC	10
Sony	04	Panasonic	11

Magnavox	05	Mitsubishi	12
Sanyo	06	JVC	13
Gold Star 1	07	Sharp	14

Controlling the TV

Once programmed, the VCR's remote control is ready to control the TV.

First set the VCR/CATV/TV switch to TV, then press the button of the TV function that you want.

For example, press CHANNEL up arrow, and the TV station will change to the next higher station.

Set the VCR/CATV/TV switch to VCR to operate your VCR with the remote again.

Be aware that not all of your TV's functions may work even though the remote control is correctly programmed.

Advanced Operations (Cable Box Hookups)

Hooking Up to a Cable Box

The cable box brings all the advantages of pay cable, but finding a satisfactory hookup can be challenging. To sort out what to do, we suggest a step-by-step approach to installation.

You will need RF TV splitters, coaxial cable jumpers, and possible RF switches to try various configurations. These are not furnished with your VCR because each installation will have different needs and require different cable lengths.

Before you begin, take a close look at the back of your TV to see where cables are currently connected. You may need to reconnect them that way later. As an aid to memory, use masking tape to label each cable and connection.

A Step-by-Step Approach

Try the hookups listed as Options 1 through 4. They are based on whether the cable channels signals are scrambled, unscrambled, or a combination. (Your cable company can tell you more about this.)

After each hookup, power up the VCR and the TV. Use the Initial Setup screen (page 23) to select option CATV1 or CATV2. Then check out the system using these questions as a guide.

Does the TV receive the same number of channels as before the installation?

Does the VCR record all channels?

Do the VCR and TV remote control functions work?

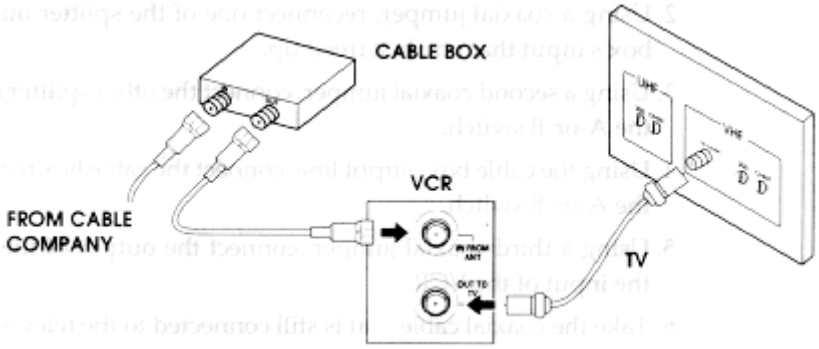
Can I record on one channel while watching another?

Do I receive my pay channels, and do all special cable features work?

If any function does not work, or works in an unexpected way, hook up everything the way it was when you started and begin again with the next hookup option.

If you don't have a direct video connection - the one using the audio/video cable - make sure the TV channel is set to 3 or 4 when you play back a tape.
Consult the cable company or the cable converter manual for assistance in using the VCR with a cable converter. You will probably need to set the VCR to channel 3 or 4 and then use the cable converter to switch stations. There may be additional procedures for picking up pay-for-view or scrambled channels, which the cable company will gladly help you with.

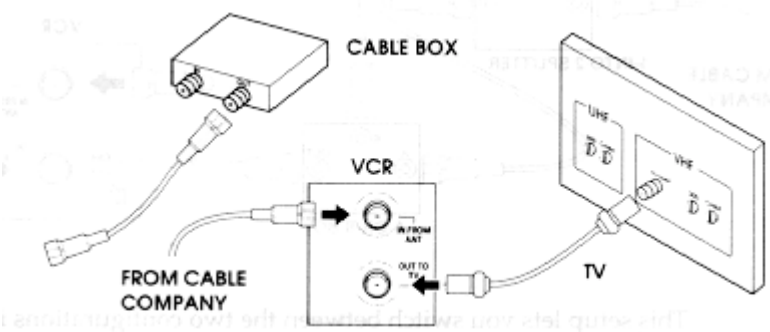
Option 1 -- All Channels Scrambled
1. Remove the cable company's cable line from the back of your TV. Connect it to the IN FROM ANT upper jack on the back of the VCR.
2. Using the 75 ohm coaxial cable supplied with your VCR, connect either end to the VCR's OUT TO TV lower jack.
3. Connect the other end of the 75 ohm cable to the TV, in the same place where you removed the cable line.



Check all the TV and VCR functions. If you don't get all the functions you want, proceed with Option 2.

Option 2--All Channels Unscrambled
1. Remove the cable company's "IN" cable line from the back of the cable box. Connect it to the IN FROM ANT upper jack on the back of the VCR.
2. Using the 75 ohm coaxial cable supplied with your VCR, connect either end to the VCR's OUT TO TV upper jack.
3. Connect the other end of the 75 ohm cable to the TV.

Note: You will end up with an extra cable that originally went from the cable box to the TV.



Check all the TV and VCR functions. If you don't get all the functions you want, proceed with Option 3.

Option 3 -- Some Channels Scrambled
This hookup requires three coaxial jumpers with connectors, a 1-into-2 splitter, and an A-or-B switch box.
1. Disconnect the cable from the cable box and attach it to the input line of the 1-into-2 splitter.
2. Using a coaxial jumper, reconnect one of the splitter outputs to the cable box's input that you just freed up.
3. Using a second coaxial jumper, connect the other splitter output to the A of the A-or-B switch.
4. Using the cable box output line, connect the cable box receptacle to the B of the A-or-B switch.
5. Using a third coaxial jumper, connect the output of the A-or-B switch to the IN FROM ANT of the VCR.
6. Take the coaxial cable that is still connected to the television and hook it to the OUT TO TV of the VCR.
Some Channels Scrambled Cable Box Hookup

This setup lets you switch between the two configurations in Options 1 and 2. Check all the TV and VCR functions. If you still don't get the functions you want, proceed with Option 4.

Option 4
If none of the preceding hookups work, check with your cable company. You may need to purchase a video switching system from your local electronics or video retailer. This will easily handle most hookup problems.

Remote Control of the Cable Converter

If you have a cable converter, you will probably want to program your VCR's remote control so you can easily change channels. The process is the same as for programming the remote to operate your TV. For additional details, see page 59.
Set VCR/CATV/TV switch to CATV and press the number of your brand of cable box (shown in the chart).
Follow same steps in "Programming the Remote Control for TV" on page 59.

Also, if your brand of Cable Converter is not listed in the chart, try all the number buttons. One of them may work for you.
If that Cable Converter channel still doesn't change or you can not turn on/off your Cable Converter after going through all the numbers listed, it is likely that you will not be able to program this remote control for you Cable Converter.

After trying, press ENTER to store the code in the memory and then press CLOCK to return to clock display.

Cable Converters	Number	Cable Converters	Number
RCA	00	Hamlin	12, 13, 34, 48
Oak	01, 38	Zenith	14,42
Regency	02	Oak Sigma	16
Regency/MGR	33	Tocom	17, 21, 49, 50
Panasonic	03, 27, 39	Pioneer	18, 20
Jerrold	04, 05, 15, 23, 24, 25 36, 45, 46, 47, 30	Philips	19, 29, 40
Teknika	06	Scientific Atlanta	22, 35
View Star	07, 08	Magnavox	26, 28
NSC	09	Warner Amex	44
Texcan	10,11	Universal	51, 52
Macom	37, 43	Unika	31, 32, 41

To operate the cable box once the remote is programmed for it:

Set VCR/CATV/TV switch to CATV and then press the button of the function you want.

Set VCR/CATV/TV switch to VCR to operate your VCR with the remote again.

Advanced Operations (Stereo System)

Integrating Your Stereo System

There are several reasons to consider hooking up your stereo system with your TV and VCR.

If your TV does not have stereo, you can get stereo quality from your VCR by hooking it to your stereo receiver.

Even if your TV does have stereo, you can get better sound by taking advantage of your stereo's better speakers.

You can record stereo audio on your VCR for longer play times, or use the VCR as an extra tape deck for dubbing.

Hookup

Stereo System Hookup Illustration

To make this hookup, you need to be familiar with the options on your stereo system. Look at the back of your receiver. Probably you have

AUDIO IN and OUT jacks for a second tape deck - labeled Tape 1 and 2, or AUX 1 and 2. Consult your stereo owner's manual for further information.
You will need two audio cables - the kind with two color-coded plugs on each end (for left and right audio channels). With the power off:

Connect the right (red) and left (white) AUDIO OUT on the VCR to the right and left AUDIO IN on the stereo system.

Connect the left and right AUDIO OUT on the stereo to the right and left AUDIO IN on the VCR.

The AUDIO IN (left) on the front of the VCR handles the left-channel or monaural sound. If you connect an audio source only to AUDIO IN (left), both left and right hi-fi tracks record as monaural.

Recording from Your Stereo System

With the hookup just shown, you can use your VCR to record a custom program of selections from your stereo library. The videotape recording will give you excellent stereo quality and a long-running tape. In this case no video will be recorded, so you can do the whole thing without turning on the TV.
Assemble the selections you want to record on the stereo, and insert a blank VHS cassette into the VCR. Be sure that HIFI is selected in the Initial Setup screen of the Easy Guide System.

Press TAPE SPEED on the remote control to select SP or EP. The EP setting gives you reasonable quality and a longer tape program.

Press INPUT on the remote control to turn the LINE (L1) indicator on.

Press REC/LENGTH on the VCR and start the stereo playing.

To stop recording, press STOP. To play back the recording, rewind the tape and press PLAY.

Advanced Operations (Second VCR)

Integrating a Second VCR

With another VCR hooked up, you can copy videotapes as needed, and you can get fancy with multimedia programming. For this discussion, we refer to the model VT-S772A Hitachi as VCR2 and the other unit as VCR1.

Hookup

To hook up a second VCR, you need:
A video cord with a single jack on each end, *and*
An audio cord with two jacks on each end, *or*
A three-way cord that has both audio and video jacks
Study the back of VCR2 (VT-S772A) to find the three color-coded jacks that are labeled IN. The yellow jack is for video, red and white are for audio. Locate similar jacks on VCR1. Then, with the power off.
Connect VIDEO OUT on VCR2 to the yellow VIDEO IN on VCR1.
Connect the AUDIO OUT jacks (left and right) on VCR2 to the AUDIO IN jacks (left and right) on VCR1. Be sure to match left to left (white) and right to right (red).
If the VCR1 (recording VCR) has an S-VIDEO IN jack, connect it to the S-VIDEO OUT jack of the VCR2 (playback VCR) for a better picture.
Second VCR Hookup Illustration

To control Both VCRs with the Remote Control

If the second VCR that you've hooked up is also a Hitachi, you can set your remote to operate both VCRs.
Press GUIDE, then press 1 to bring up the Initial Setup screen.
The default setting on the Initial Setup screen is VCR1, for when you have only one VCR running.
Press 4 to set VCR CODE to VCR2.
Press the VCR1/2 button on the remote to display the VCR2 in the remote display before pressing GUIDE to exit the on-screen program.
With this setting, the remote control can now operate both VCRs. To switch control from one to the other, simply press VCR1/2 on the remote. Remember to aim the remote at the selected VCR.

Copying from One VCR to Another (Dubbing)

Consider VCR1 the recording VCR, and VCR2 (VT-S772A) the playback VCR. You will play a tape on VCR2 and record it on VCR1. To begin copying:
Insert the videotape you wish to record in VCR2.
Insert a blank or erasable tape (with the safety tab intact) into VCR1.

[1] Press AVX on VCR1 - the LINE indicator will display.
Press REC on VCR1, and press PLAY on VCR2.
To monitor the picture as you record, VCR1 must be connected to your TV (follow instructions in the other VCR's manual). Press the VCR/TV button on the remote. The VCR indicator will light on VCR1's display and you can view the picture being recorded.

Audio Dubbing

Audio dubbing is a procedure whereby you can replace sections of the linear audio track on your tape with new audio information. During audio dubbing the video section and the Hi-Fi audio section will not be disturbed, only the linear audio track. (see page 29 "Choosing a Mode for Audio Playback" for more information).
The new audio information can come from either a receiver, [2]a microphone, or any other device that can generate an audio signal.

Audio Dubbing Hookup Illustration

To begin dubbing

First connect the audio source (receiver, microphone, etc.) to the audio input jacks on the front of your VT-S772A. (see example above)

Be sure that the record safety tab is not missing.

Press AUDIO MONITOR on the remote control to select the linear sound. (The L and R on the level meter will go off.)

Recording Monaural Sound

If you are recording monaural sound you will only use one jack. Connect your plug to the left jack marked AUDIO IN (L). This jack inputs monaural sound to both the left and right channels.

Press the INPUT button on the remote control to select L2 (line2) which appears in the VCR's channel display.

Find the place on the tape which will become the beginning for your audio dub. This can be done using the PLAY button and the Shuttle Dial. Pause the tape when you reach your start point.

Press the MODE/REMAIN button on the remote control to display the counter reading in the VCR's display. The number shown will be your "start point".

To find the "end point" of your audio dub play or search through the tape until you find the place where the audio dub will stop.

Press CLEAR/T-160 on the remote control and the VCR display will read "0:00:00".

Press MEMORY on the remote control to turn on the counter memory.

Rewind the tape to the "start point" using the Shuttle Dial. By using the Shuttle Dial you can find the exact spot you wish the dubbing to start.

Press the A.DUB button on the VCR. (Be sure that your audio source is ready) Start your audio source and then press the VCR's PAUSE button to begin audio dubbing. The VCR will stop automatically when the counter reads "0:00:00" (the "end point").

After dubbing, select the type of audio for listening

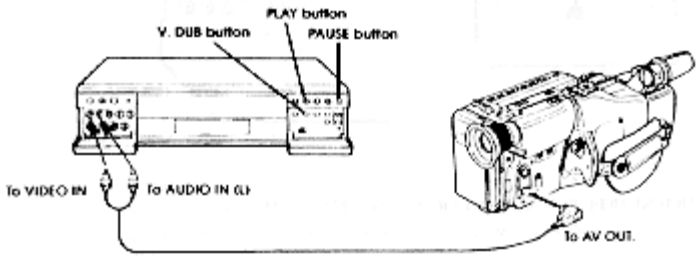
To hear the sound that was dubbed, press AUDIO MONITOR on the remote control to select linear sound.

To hear the dubbed sound and the sound before dubbing simultaneously, select "AUDIO MIX <ON>" following "INITIAL SETUP" on page 24.[3]ACTUALLY PAGE 25

Video Dubbing

Video dubbing is a procedure whereby you can replace sections of video on your tape with new video information. The dubbing erases the old video while laying new video in its place. During video dubbing the Hi-Fi audio section will be erased but dubbing will not affect the audio recorded onto the linear track. (See page 29 "Choosing a Mode for Audio Playback" for more information)

The new video information can come from either a camcorder, another VCR, or any other device that can generate a video signal.



* When an audio cable is connected to the AUDIO IN jacks, new audio signals can be recorded on the Hi-Fi tracks.

To begin dubbing

First connect the video source (camcorder, VCR, etc.) to the input jacks on the front of your VT-S772A. (see example on page 69) If the camcorder, VCR, etc. has an S-VIDEO OUT jack, connect it to the S-VIDEO IN jack of the VCR for a better picture.

Be sure that the record safety tab is not missing.

Press the INPUT button on the remote control to select L2 (line 2) which appears in the VCR's channel display.

Find the place on the tape which will become the start point for your video dub. This can be done using the PLAY button and the Shuttle Dial. Pause the tape when you reach your start point.

Press the MODE/REMAIN button on the remote control to display the counter reading in the VCR's display. The number shown will be your "start point".

To find the "end point" of your video dub play or search through the tape until you find the place where the video dub will stop.

Press CLEAR/T-160 on the remote control and the VCR display will read "0:00:00".

Rewind the tape to the "start point" using the Shuttle Dial. By using the Shuttle Dial you can find the exact spot you wish the dubbing to start.

Press MEMORY on the remote control to turn on the counter memory.

Press the V.DUB button on the VCR. Then press the PAUSE button to begin video dubbing. The VCR will stop automatically when the counter reads "0:00:00" (the "end point").

Synchro Editing

Tape copying is much easier if you can connect VCR1 and VCR2 with a synchro edit cable. This lets you use a single set of controls to govern both VCRs.

We assume that VCR2 is your model VT-S772A. This is the playback VCR.

The other VCR must be a Hitachi and must have a jack labeled EDIT. This is the recording VCR.

You will need to purchase a synchro edit cable. You may order one by calling 1-800-HITACHI. Ask for part number VTCH40S.

Remember to switch the remote control between VCR1 and VCR2 mode, depending on which device you are signalling.

Hookup When VCR1 is Recording

Hook up the two VCRs and the TV as shown on page 66.

Connect the synchro cable from EDIT IN on VCR1 to EDIT IN/OUT on VCR2.

Synchro Edit Hookup Illustration

Synchro Edit Procedure When VCR1 is Recording

Turn the power on to both VCRs and the TV.

Insert the cassette you want to copy into VCR2.

On VCR2, press PLAY. Locate the place on the tape where you want to begin copying, then press PAUSE.

Insert a cassette (with its safety tab intact) into VCR1. Put this VCR in RECORD-PAUSE mode, and press AVX to put it in LINE mode.

Press DISPLAY on VCR2 (the playback VCR) to select the mode display off. The mode display will no longer appear on TV screen, if VCR2 is operated.

Press PAUSE on VCR2 (the playback VCR) to start the recording. Both tapes will start together.

Press PAUSE again on VCR2 when you want to stop. Both VCRs will pause. Now fast-forward or rewind the tape in VCR2 to find the next segment you want to copy.

Put VCR2 into PLAY-PAUSE mode and press PAUSE again - recording will continue.

Press the STOP buttons on both VCRs when you are finished.

This procedure won't leave index marks unless you press STOP then REC between sections recorded (more about index marks on pages 40 and 43).

Programmable Synchro Edit

Hookup when VCR1 is Recording

Hook up the two VCRs and the TV as shown on page 66.

Connect the synchro cable from EDIT IN on VCR1 to EDIT IN/OUT on VCR2. (see page 71)

Turn the power on both VCRs and the TV, and select channel for VCR use.

Insert the cassette you want to copy into VCR2.

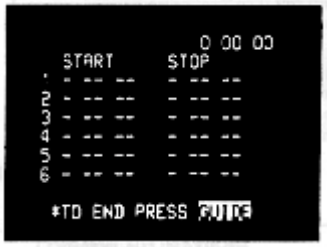
Set AI switch to SHARP, play tape a little to adjust tracking on VCR2.

Select mode display off on VCR2.

Insert a cassette (with its safety tab intact) into VCR1. Press AVX to put it in LINE mode.

Programming Your Synchro Edit

While aiming the remote control at the VCR, press the GUIDE and then press 3 on the remote. The following menu appears:



1. Select the start point of the program that you want to copy. You can locate the

beginning of the program by using the shuttle dial, PLAY, REWIND, or FAST FORWARD button.
2. When you have located the start point of your edit press the SET (TAPE SPEED) button on the remote. The current time counter is registered.
3. Locate the end point of your edit using the shuttle dial, PLAY, REWIND, or FAST FORWARD button then press SET (TAPE SPEED) on the remote control. The current time counter is registered and you now have the start and end points for your edit.
4. Repeat steps 1 through 3 for each program segment (up to six) you want to copy.

Note: To correct an error while programming, press the CURSOR (TRACKING) up or down button to move the cursor to the incorrect counter reading. (Press CURSOR up for forward or CURSOR down for backward.) Then press the CLEAR (AUTO) button. Then counter reading will be reset to "-:--:--".

5. Press the CURSOR up button repeatedly so the flashing cursor disappears from the TV screen. PRESS PLAY TO START will be displayed.
6. Press the RECORD button, then the PAUSE button to place the VCR1 in the record-pause mode.
7. Press the PLAY button on VCR2. The program menu will disappear from the screen, and VCR2 will automatically search for the beginning of the first programmed segment and start copying.

Note: PRESS PLAY TO START must be displayed on the TV screen when you press the PLAY button for the copying to begin.

When programmable synchro edit is finished, the VCR2 will enter the stop mode and the VCR1 will enter the record-pause mode. Press the STOP button on the VCR1 to release the record-pause mode and place it in the stop mode. Then press the GUIDE button on the VCR2's remote control to remove the PROGRAM EDIT menu from the TV screen.

Notes:
If the GUIDE button is pressed prior to pressing the STOP button on the VCR1, the VCR2 will enter the record mode.
The programmed information will clear automatically when the cassette is ejected or the VCR's power is turned off.
Set the remote control code of the VCR1 to [VCR1] for program synchro editing (refer to page 24).
Some models of VCR will switch to the "STOP" mode if they are left in the RECORD/PAUSE mode for more than five minutes. It is a good idea to not leave your recording deck in RECORD/PAUSE for more than five minutes so that this will not happen.

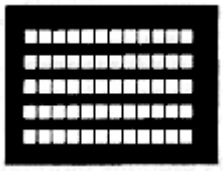
Creating and Recording the title

You can easily create and record personalized titles on your videos. Create a title and store it in the memory of the VCR, following the procedure below. Select the picture on which the title will be superimposed, then recall the stored title and perform recording; the title will be recorded on the picture.
The stored title remains in the memory of the VCR even if the VCR power is turned off as long as it has not been cleared.

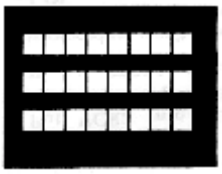
To create a title

1. Turn on the power of both VCR and TV.
2. Be sure that the TV is set to the video channel (channel 3 or 4).
3. Aim the remote control to the VCR.
4. Press the TITLE button on the remote control to bring up this screen. The JOG/SHUTTLE indicator will light.

Note: You have already stored a title before, it appears. To create new title, turn the Shuttle Dial counterclockwise to erase the previous title.

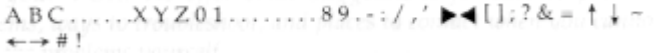


5. Select the character size with the Jog Dial.
Turn the Jog Dial in either direction to select from one of three character sizes.



6. Turn the Shuttle Dial clockwise to start creating a title.

7. Turn the Shuttle Dial again to move the flashing box to the position where you want to enter the first character for your title.
8. Select characters with the Jog Dial.
   Turning the Jog Dial clockwise changes characters in the following order.



9. Repeat steps 7 and 8 to create a title.

10. Press the TITLE button. The title will go off from the TV screen but it is stored in the VCR.
11. Select the picture over which the title is to be recorded by pressing the CHANNEL button.

Notes: To superimpose a title on a picture from an external input, connect an external input and then press the INPUT button to select "L1" or "L2".

12. Press the TITLE button. The created title appears on the TV screen.
13. Press the REC buttons to record this title over the background picture. The title will be recorded together with the picture.
14. Press the TITLE button. The title will disappear from the TV screen, but recording will continue.
15. Press the STOP button to stop recording.

Notes:
Once a title has been created, it is stored in the VCR even when the VCR power is turned off. To erase the title, repeat steps 1 through 4 over again.
Once the characters have been entered, the title size cannot be changed.
When the screen has a blue background, the title can be displayed but it cannot be recorded.
While creating a title, turning the Shuttle Dial Counter clockwise moves the flashing box backwards and erases another character.

Advanced Operations (Camcorder)

Copying Tapes From A Camcorder

If you would like to copy a video tape shot in your camcorder onto your VCR here's how to do it.
Connect the camcorder's AV output cable to your VCR. (see diagram below)

Camcorder to VCR Hookup Illustration

Press the INPUT button on the VCR's remote control so that the L2 (Line) indicator appears in the VCR display.
Press REC/LENGTH on the VCR to start recording.

Press PLAY on your camcorder to start copying your tape.

Information on Audio Hookup

If your camcorder is only capable of monaural output (one audio jack) connect it to the AUDIO IN L/MONO input of the VCR.

VCR Care and Servicing

The VCR is fairly self-servicing, but you'll want to keep an eye on a few things as you go. In addition, you may sometimes have troubles with your VCR. We offer some suggestions for care to prevent problems, ways to troubleshoot, and places to contact when you cannot solve the problems yourself.

Routine Cleaning

Head Cleaning

The heads are tiny mechanisms in the VCR that pick up the video signal as a videotape passes over them. In time, a residue of electromagnetic dust builds up on the heads because of contact with the tape. This dust interferes with the signal being picked up.
Your Hitachi VCR automatically cleans the video heads whenever a cassette is loaded or ejected and when a cassette is already inside the VCR when you turn the power off. It also self-cleans during fast-forward and reverse play. You will hear a mechanical sound during auto head cleaning.
Even with the auto head cleaning system, dirt can build up on the heads. If the picture is blurry during playback, or is occasionally interrupted or blanks out, try playing different cassettes to see whether you get the same picture problems.
If the picture problems persist, the heads may need to be cleaned professionally. Consult your VCR dealer for the name of a trained service technician near you.

Periodic Maintenance

Your Hitachi VCR is a precision electro-mechanical device which requires professional maintenance after a period of normal use.
Usually no maintenance other than head cleaning is required during the warranty period, unless the VCR is used either heavily or infrequently. Defective parts are covered during the warranty period, but normal maintenance is your responsibility. Consult your VCR service center to find out what they recommend as normal maintenance based on your location, how you use the VCR and the age of the machine.

Care and Servicing (Problems)

If the VCR Doesn't Work Right

Many operational problems are easily remedied by reviewing the instructions in this manual and trying out some different controls and settings. The chart on the facing page covers the more common problems that new VCR owners encounter.

Don't Attempt Repairs Yourself

Do not remove the cover or the back of the VCR - this will void the warranty and endanger your safety. The exposed uninsulated voltage in this unit may be high enough to cause electrical shock. It is dangerous to make contact with any inside part, and none of these parts are intended to be serviced by an untrained user. To be safe, refer service problems to qualified service personnel.

Often Encountered Problems

Problem	Things to Check	Solution
No Power.	Power cord plugged in?	Connect the power cord to AC outlet.
Delayed recording work.	Program set to the correct channel?	Reset the delayed recording. If using VCR Plus+, check the does not channel setup.
	Program time and date set correctly?	Reset the delayed recording.
	VCR power turned off?	Turn power off to activate the timer.
	Safety tab removed from the videocassette?	Put cellophane tape over the tab area, or use a videocassette with the safety tab intact.
Does not record when press REC.	Safety tab removed from the videocassette?	Put cellophane tape over the tab area, or use a videocassette with you the safety tab intact.
TV program be viewed or recorded.	Loose or inappropriate connections between VCR and TV?	Review hookup directions and cannot make correct, firm connections.
Poor picture ("noise") during	TV channel selector on the proper channel?	Set TV to channel 3 or 4 as quality correct for your area. (Set TV to AUX or VIDEO if you have a playback. direct video hookup.)
	Is TV correctly tuned?	Fine tune the TV.
	Static lines through the-picture?	Press the tracking control buttons to adjust tracking.
	"Noisy" picture despite all	Have video heads cleaned by a

	previous adjustments, even when playing different cassettes?	qualified service technician.
No picture during playback.	TV set to the correct video viewing channel?	Set TV to channel 3 or 4.
Problem	**Things to Check**	**Solution**
TV cannot be operated by VCR's control.	Is VCR remote control programmed for your TV?	Follow instructions in Advanced Operations to program the the remote to send signals that your remote TV can recognize. (Not all TV brands are compatible.)
	Is remote control set to control the TV?	Press the TV device button, then press the button corresponding to the TV function you want.
Mechanical sounds during the STOP	Has a loaded cassette been stopped more than 5 minutes?	Nothing is wrong. The tape protection mechanism is working. Eject the cassette if you are done viewing. Otherwise, no action is necessary.

Hitachi Service Hotline

Authorized Hitachi service facilities are available throughout the US and Canada. For the location nearest you, call the Hitachi Service Hotline at one of these numbers:

In the continental U.S.A.

DIAL TOLL FREE
7 days a week, 24 hours a day
1-800-HITACHI
(1-800-448-2244)
You must state your zip code when calling

In Canada

4	QUEBEC	418-527-5853
	MONTREAL	514-697-9150
	TORONTO	416-821-4545
	VANCOUVER	604-526-8566

Specifications

Technical Specifications

Recording:	Rotary two-head helical scan azimuth recording
Video:	NTSC color EIA standard
Cassette:	S-VHS/VHS type
Heads:	5 video heads; 2 for SP, 2 for EP, 1 for Flying Erase Head
	2 hi-fi audio heads
	1 full track audio/video erase head
	1 combination head for control track, audio erase and audio record/play (3 heads/single housing)
Tape speed:	33.35 mm/sec (SP), 16.67 mm/sec (LP) (playback only), 11.12 mm/sec (EP)
Tape width:	12.7 mm
RF Output:	Channel 3 or 4
RF Input:	UHF/VHF 75 ohm
Tuning Range:	VHF LOW CH, 2 - 6 (54 MHz - 88 MHz)
	VHF MID CH, A-5 - A-1 and A-I (90 MHz - 174 MHz) CATV
	VHF HIGH CH, 7 - 13 (174 MHz - 216 MHz)
	VHF SUPER CH, J - W (216 MHz - 300 MHz) CATV
	VHF HYPER CH, W+1 - W+28 (300 MHz - 468 MHz) CATV
	UHF CH, 14 - 69, W+29 - W+84 (470 MHz - 806 MHz)
S-Video Input:	1.0Vp-p, 75ohm unbalanced luminance signal
	0.286Vp-p, 75ohm unbalanced chroma signal
Video Input:	1 - 2 Vp-p, 75ohm unbalanced
S-Video Output:	1.0Vp-p, 75ohm unbalanced luminance signal
	0.286Vp-p, 75ohm unbalanced chroma signal
Video Output:	1 Vp-p, 75ohm unbalanced
Audio Input:	316 mV rms (-7.8 dB) 47 kohm
Audio Output:	316 mV rms (-7.8 dB) 1.5 k ohm
Video Recording S/N:	Better than 46 dB (SP), better than 43 dB (EP)
Horizontal Resolution:	S-VHS mode 400 lines
	VHS mode 240 lines (SP), 230 lines (EP)
Audio Response:	50 Hz - 10 kHz (SP); 100 Hz - 6 kHz (EP)
Audio S/N:	Better than 43 dB (SP), better than 40 dB (EP)
Hi-Fi Audio	Frequency Range: 20 Hz to 20 kHz
	Dynamic Range: 90 dB
	Wow and Flutter: Less than 0.005% WRMS
Power Input:	AC 120 V 60 Hz
Power Consumption:	29W nominal
Cabinet Size:	17-1/8" (W) x 3-7/8" (H) x 14-1/8" (D)
	43.5 (W) x 9.9 (H) x 35.8 (D) cm
Weight:	13.4 lbs. (6.1 kg)

Accessories: 1 coaxial cable (Part No. 5860202),
1 remote control unit (Part No. 5616521), 2 AA batteries
1 audio/video cable
1 S video cable

For information about how to obtain these accessories, please call TOLL FREE 1-800-448-2244 for your nearest Hitachi Authorized Parts Distributor in the

continental United States. For ALASKA and HAWAII, please contact the nearest Hitachi Regional office.

Design and specifications subject to change without notice.

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[1]The VT-S772a has an "INPUT" button not an "AVX" button!!

[2]The microphone can't actually connect to the VCR directly - it must be attached to a receiver, tape deck, etc, that is then connected to the audio inputs of the VCR!

[3]The manual states that this setup option is on page 24, but the AUDIO MIX option is explained on page 25.

[4]**Old numbers!! These were correct when this VCR was first introduced but have changed as follows:**

QUEBEC	**418-681-7719**
MONTREAL	**514-679-9150**
TORONTO	**416-821-4545**
VANCOUVER	**604-526-7881**